State of Delaware Department of Natural Resources & Environmental Control Division of Air & Waste Management Air Quality Management Section 156 South State Street Dover, DE 19901

Regulation No. 30 (Title V) Operating Permit Facility I.D. Number: 1000300016
Permit Number: AQM-003/00016 - Part 2 Draft

Effective Date: Expiration	on Date: 5 Years from Date of Issue	
Pursuant to 7 <u>Del C.</u> Chapter 60, Section 6003 and the Sta <u>Air Pollution</u> ," Regulation No. 2, Section 2 and Regulation Natural Resources and Environmental Control (Departme Condition 1 of this permit; subject to the terms and condit This approval is granted to:	on No. 30, Section 7(b), approval of the Department of nt) is hereby granted to operate the emission units listed in	
Permittee	Plant Site Location	
(hereinafter referred to as "Company")	(hereinafter referred to as "Facility")	
Premcor Refining Group Inc.	Valero Delaware City Refinery	
Delaware City, Delaware 19706	2000 Wrangle Hill Road	
Responsible Official: Mr. Andrew Kenner, Vice	Delaware City, DE 19706	
President and General Manager		
All terms and conditions of this permit are enforceable by Agency (EPA) unless specifically designated as "State En Regulation No. 30 Section 6(b)(1), dated 12/11/00]	the Department and by the U.S. Environmental Protection of the Only" by the Department only. [Reference]	
Ravi Rangan, P.E. Environmental Engineer Engineering & Compliance Branch (302) 323-4542	Date	
Robert L. Taggart Program Manager Engineering & Compliance Branch (302) 323-4542	Date	

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<u>Condition 1. Emission Units Identification</u>. [Reference Regulation No. 30 Section 3(c)(1), dated 12/11/00]

a. <u>Emission Units Information</u>

Table 2: Emission Points and Unit Identification:

	1 abic 2.	Emission I omes and Chit Identification.	
Emission	Emission	Source Description	
Unit	Point/s		
	Carbon canister	Oily Sewer System, API/CPI separators, flash mix tank, spill diversion	
	locations ¹	and equalization tanks, 2 flocculation tanks and dissolved nitrogen	
		floatation (DNF) system	
WWTP	10-1	DNF Oil Recovery System and Vapor Combustion Unit (VCU)	
	No emission points	Secondary and tertiary treatment equipment (downstream of DNF), 1st and	
		2 nd stage activated sludge, sand filtration and assorted sumps and	
		equipment	
GDF	N/A	Gasoline dispensing facility	
MVR	15-1	Marine piers 2 and 3 loading area	
	15-1		
	21-1	Crude Unit, Atmospheric heater 21-H-701, and vacuum heater 21-H-2	
		-	
		Crude coker gasoline Merox treater	
CU	21-1 or 28-1 or	SWS hydrogen sulfide stripping vessel, 21-C-302	
	28-2		
	28-1 or 28-2		
FCU	22-1	Fluid coke handling and storage facility	
	22-2	Fluid Coking Unit (FCU), FCU start up heater 22-H-1, CO Boiler (22-H-	
		3), wet gas scrubber and SNCR	
		<i>,,</i> • • • • • • • • • • • • • • • • • •	
	22-3	Back up incinerator 22-H-4	
		•	
	22-4	FCU Selas Steam Superheater	
FCCU	23-1	FCCU start up heaters 23-H-1A and 1B, FCCU, CO Boiler (22-H-3), wet	
		gas scrubber, alky merox spent air, and poly merox spent air	
GP	No emission	Refinery gas plant	
	Points	· · ·	
RFG2K	25-4 and 25-5	CNHT reactor charge heater 25-H-401, CNHT reboiler heater 25-H-402,	
		CHNT unit, reformer, butamer unit	
ALKY	No emission	Aklylation unit	
	Points		
POLY	No emission	Polymerization unit	
	Points		
SRA	28-1 and 28-2	Sulfur recovery area inclusive of 2 Claus sulfur recovery units (SRU I and	
		SRU II), Shell Claus Offgas Treatment Units I (SCOT I and II)	
HP	37-1A and 37-1B	Hydrogen plant and reformer heater 37-H-1 A/B	
MP	41-1 and 41-2	This unit has been shut down with no foreseeable plan to restart	
CCR	42-1 and 42-2	CCR reformer unit, platform heater 42-H-1,2,3 and CCR reboiler 42-H-7	
CCIC	12 1 und 12 2	Control of the plantoff from the control of the con	

¹ Carbon canisters are located at various parts of the oily sewer system and the primary treatment plant. The details of the locations are described in Section of the accompanying review memorandum.

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Utilities	45-1 and 45-2	Refinery flare system, spent caustic stripper and RFG2K cooling tower
Facility wide		See table 3

b. Regulation No. 2 Permit Identification².

Reference Number	Full Regulation No. 2 Permit Designation
APC-81/0283	APC-81/283 OPERATION issued January 14, 1981 for the Oil Recovery System
APC-81/1008	APC-81/1008 OPERATION (Amendment 3)(NESHAP) issued October 31, 2000
	for the API/CPI Separators; and
	APC-81/1008-CONSTRUCTION/OPERATION (Amendment 4)(NESHAP) issued
	February 22, 2001 for the API/CPI Separators
APC-81/1009	APC-81/1009 OPERATION (Amendment 2)(NESHAP) issued November 8,1999
	for the Equalization Tanks and Spill Diversion Tank
APC-93/0350 (A1)	APC-93/0350 CONSTRUCTION/OPERATION (Amendment 1)(NESHAP) issued
	on June 25, 2001 for the Oily Water Sewer System
APC-94/0710	APC-94/0710-OPERATION (NESHAP)(NOx RACT) issued April 14, 1998 for the
	VCU
APC-95/0862-OI	APC-95/9862-OPERATION (Stage I) issued April 28, 1995 for the Dual point
	Stage I Vapor Recovery System
APC-95/0863-OII	APC-95/0863-OPERATION (Stage II) issued April 28, 1995 for the Healy Stage II
	Vapor Recovery System
APC-95/0471 (A2)	APC-95/0471-OPERATION (Amendment 2)(MACT)(RACT) issued May 3, 2002
	for the Marine Vapor Recovery System
APC-81/0828 (A1)	APC-81/0828 (A1)-OPERATION (Amendment 1) issued June 29, 2007 for the
	Crude Unit
APC-95/0570 (A2)	APC-95/0570-OPERATION (Amendment 2)(LAER)(NSPS) issued June 29, 2007,
	for the Crude Unit Atmospheric Heater 21-H-701
APC-81/0784	APC-81/0784-CONSTRUCTION (Amendment 1)(NOx RACT) issued April 25,
	1996 for the Vacuum Tower Heater; and
	APC-81/0784-OPERATION issued June 17, 1981 for the Vacuum Tower Heater
APC-81/0963	APC-81/0963-OPERATION issued August 12, 1981 for the coker Merox Plant
APC-81/0785	APC-81/0785-OPERATION issued June 17, 1981 for various heaters
APC-81/0829 (A6)	APC-81/0829-OPERATION (Amendment 6) issued June 29, 2007 for the Fluid
	Coker Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-
	Catalytic Reduction System
APC-82/1209 (A3)	APC-82/1209-CONSTRUCTION (Amendment 3) issued May 2, 2005 for the Coke
, ,	and Flux Handling/Storage Facility
APC-82/0981 (A6-1)	APC-82/0981-OPERATION (Amendment 6) (NSPS) Addendum 1 issued October
	1, 2007 for the Fluid Catalytic Cracking Unit (FCCU), FCCU Carbon Monoxide
	Boiler, and Wet Gas Scrubber System
APC-81/0827 (A1)	APC-81/0827-OPERATION (Amendment 1)(RACT)(NSPS) issued January 30,
	1995 for the Alkylation Merox Unit-Merox Treater
APC-98/0522	APC-98/0522-OPERATION (RACT)(NSPS) ISSUED June 18, 2002 for the CHNT
	Heaters
APC-98/0523	APC-98/0523-OPERATION (NSPS)(RACT)(NESHAP) issued March 11, 2002 for
	the CNHT Unit, Butamer Unit, Alkylation Unit and cooling tower
APC 81/0825	APC 81/0825-OPERATION, issued June 17, 1981 for the Catalytic Reformer Unit

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² This chart identifies the underlying permits whose provisions have been incorporated into this Title V permit and specifies the references number that will be used to identify the source of the underlying permit condition throughout this Title V permit.

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APC 82/0593	APC 82/0593-OPERATION issued March 31, 1982 for the Polymerization Merox
AFC 82/0393	
	Plant
APC-81/0826 (A2)	APC-81/0826-OPERATION (Amendment 2) issued August 22, 1991 for the
	Alkylation and Polymerization Units
APC-98/0264 (A6)	APC-98/0264-CONSTRUCTION (Amendment 6)(NSPS) issued June 29, 2007 for
	the Sulfur Recovery Area
APC-81/0965	APC-81/0965-OPERATION issued September 9, 1981 for the Hydrogen Plant; and
	APC-81/0965-OPERATION (Amendment 1)(VOC RACT) issued April 7, 2003 for
	the Hydrogen Plant Replacement of Low Temperature Shift Reactor Catalayst
APC-82/0073	APC-82/073-OPERATION issued February 8, 1985 for the CCR Reformer and
	Heater 42-H-1,2,3; APC-82/0073-OPERATION (Amendment 1)(MACT) issued
	August 16, 2005 for the CCR Reformer and Hydrochloric Acid Wet Gas Scrubber
APC-82/0632	APC-82/0632-OPERATION issued February 8, 1985 for the CCR Reformer
	Reboiler Heater 42-H-7
APC-81/0830	APC-81/0830-OPERATION issued July 30, 1981 for the Flare System
APC-95/0381	APC-95/0381-OPERATION issued May 13, 1996 for the Spent Caustic Stripper

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Condition 2. General Requirements

a. Certification

- 1. Any application form, report or compliance certification submitted to the Department/EPA as required by Regulation No. 30 shall be certified by a responsible official as to truth, accuracy, and completeness. Such certification shall be signed by a responsible official and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [Reference Regulation No. 30 Section 5(f), dated 11/15/93 and 6(c)(1), dated 12/11/2000]
- 2. Any report of deviations required under Conditions 3(c)(2)(ii) or 3(c)(2)(iii)

 That must be submitted to the Department within ten (10) calendar days of the deviation, may be submitted in the first instance without a certification provided a certification meeting the requirements of Condition 29a)(1) is submitted to the Department within ten (10) calendar days thereafter, together with any corrected or supplemental information required concerning the deviation. [Reference Regulation No. 30 Section 6(a)(3)(iii)(D), dated 12/11/00]
- 3. Each document submitted to the Department/EPA pursuant to this permit shall be sent to The following addresses:

State of Delaware – DNREC	Section Chief
Division of Air and Waste Management	Air Enforcement Section (3AP13)
Air Quality Management Section	United States Environmental Protection Agency
156 South State Street	841 Chestnut Street
Dover, DE 19901	Philadelphia, PA 19107
Attn: Program Administrator	
No. of copies: 2	No. of copies: 1

b. Compliance

- 1. The Company shall comply with all terms and conditions of this permit. Any noncompliance with this permit constitutes a violation of the applicable requirements under the Clean Air Act, and/or the State of Delaware "Regulations Governing the Control of Air Pollution" and is grounds for an enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal. [Reference Regulation No. 30 Sections 6(a)(7)(i), dated 12/11/00]
- 2. i. For applicable requirements with which the source is in compliance, the Company shall continue to comply with such requirements. [Reference Regulation No. 30 Sections 5(d)(8(iii)(A), dated 11/15/93, and 6(c)(3), dated 12/11/00]
 - ii. For applicable requirements that will become effective during the term of this permit, the Company shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [Reference Regulation No. 30 Sections 5(d)(8)(iii)(B), dated 11/15/93, and 6(c)(3), dated 12/11/00]
- 3. Nothing in Condition 2(b)(1) of this permit shall be construed to preclude the Company from making changes consistent with Condition 2(m)(3) [Minor Permit Modifications] or Condition 4(a) [Operational Flexibility]. [Reference Regulation No. 30 Sections 6(h), dated 12/11/00, and 7(e)(1)(v), dated 12/11/00]

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- 4. The fact that it would have been necessary to halt or reduce an activity in order to maintain compliance with the terms and conditions of this permit shall not constitute a defense for the Company in any enforcement action. Nothing in this permit shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [Reference Regulation No. 30 Section 6(a)(7)(ii), dated 12/11/00]
- 5. The Company may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency or a malfunction if both the record keeping requirements in Condition 3(b)(2)(iii) and the reporting requirements in condition 3(c)(2)(ii)(A) are satisfied. [Reference Regulation No. 30 Section 6(g)(2), dated 12/11/00]
- 6. In any enforcement proceeding, the Company seeking to establish the occurrence of an emergency or malfunction has the burden of proof. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement. [Reference Regulation No. 30 Section 6(g)(4), dated 12/11/00 and 6(g)(5), dated 12/11/00]
- 7. The Company shall not cause the Ambient Air Quality Standards to be exceeded. [Reference Regulation No. 3, dated 3/29/88]
- 8. If required, the schedule of compliance in Condition 5(a) of this permit is supplemental to and shall not sanction noncompliance with the applicable requirements upon which it is based. [Reference Regulation No. 30 Section 5(d)(8)(iii)(C), dated 11/15/93]
- 9. Nothing in this permit shall be interpreted to preclude the use of any credible evidence to demonstrate noncompliance with any term of this permit. [Reference 62 FR 8314, dated 2/24/97]
- 10. All terms and conditions of this permit are enforceable by the Department and by the US Environmental Protection Agency ("EPA") unless specifically designated as "State Enforceable Only". [Reference Regulation No. 30 Section 6(b)(1), dated 12/11/2000]
- 11. This Title V permit does not grant permission to emit any pollutant other than as specified in this permit. [Reference 7 <u>Del. C 6003</u>]
- c. <u>Confidentiality</u> The Company may make a claim of confidentiality for any information or records submitted to the Department. However, by submitting a permit application, the Company waives any right to confidentiality as to the contents of its permit, and the permit contents will not be entitled to protection under 7 <u>Del.C.</u>, Chapter 60, Section 6014. [Reference Regulation No. 30 Section 5(a)(4), dated 12/11/00, 6(a)(3)(iii)(E), dated 12/11/00, and 6(a)(7)(v), dated 12/11/00]
 - 1. Confidential information shall meet the requirements of 7 <u>Del.C.</u>, Chapter 60, Section 6014, and 29 <u>Del.C.</u>, chapter 100. [Reference Regulation No. 30 Section 5(a)(4), dated 11/15/93]
 - 2. If the Company submits information to the Department under a claim of confidentiality, the Company shall also submit a copy of such information directly to the EPA, if the Department requests that the Company do so. [Reference Regulation No. 30 Section 5(a)(4), dated 11/15/93]
- **d.** <u>Construction, Installation, or Alteration</u> The company shall not initiate construction, installation, or alteration of any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the

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Department under Regulation No. 2, and, when applicable, Regulation No. 25, and receiving approval of such application from the Department; except as exempted in Regulation No. 2 Section 2.2 of the State of Delaware "Regulations Governing the Control of Air Pollution." [Reference Regulation No. 2 Section 2.1, dated 6/1/97 and Regulation No. 30, Section 7(b)(3), dated 12/11/00]

- e. <u>Definitions/Abbreviations</u> Except as specifically provided for below, for the purposes of this permit, terms used herein shall have the same meaning accorded to them under the applicable requirements of the Clean Air Act and the State of Delaware "<u>Regulations Governing the Control of Air Pollution.</u>"
 - 1. "Act" means the Clean Air Act, as amended by the Clean Air Act Amendments of November 15, 1990, 42 U.S.C. 7401 et seq. [Reference Regulation No. 30 Section 2, dated 12/11/00]
 - 2. "AP_42" means the Compilation Of Air Pollutant Emission Factors, Fifth Edition, AP_42, dated January 15, 1995, as amended with Supplements "A" dated February 1996, "B" dated November 1996, "C" dated November 1997, "D" dated August 1998, "E" dated September 1999, and "F" dated September 2000 and the December 2001 update, the December 2002 update and the December 2003 update.
 - 3. "CFR" means Code of Federal Regulations.
 - 4. "Emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that cause the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [Reference Regulation No. 30 Section 6(g)((1), dated 12/11/00]
 - 5. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment Or process equipment or of a process to operate in a normal or usual manner, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increase in emissions attributable to the malfunction. A malfunction shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [Reference Regulation No. 30 Section 6(g)(1), dated 12/11/001
 - 6. "Reg." and "Regulation" mean State of Delaware "Regulations Governing the Control of Air Pollution."
 - 7. "Regulations Governing the Control of Air Pollution" means the codification of those Regulations enacted by the Delaware Department of Natural Resources and Environmental Control, in accordance with 7 Del.C., Chapter 60, Section 6010.
 - 8. "Stack Test Based Emissions Factor" means an emissions factor derived from the results of the most recent compliance stack test performed within the last five (5) years for the unit in question.

f. **Duty to Supplement.**

1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect

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information in any permit application, the Company shall promptly submit to the Department such supplementary facts or corrected information. [Reference Regulation No. 30 Section 5(b), dated 11/15/93]

- 2. The Company shall promptly submit to the Department information as necessary to address any requirement(s) that become applicable to the source after the date it filed a complete application, but prior to release of a corresponding draft permit. [Reference Regulation No. 30 Section 5(b), dated 11/15/93]
- 3. The Company shall furnish to the Department, upon receipt of a written request and within a Reasonable time specified by the Department:
 - i. Any information that the Department determines is reasonably necessary to evaluate or take final action on any permit application submitted in accordance with Condition 2(l) or 2(m) of this permit. The Company may request an extension to any deadline the Department may impose on the response for such information. [Reference Regulation No. 30 Section 5(a)(2)(iii), dated 11/15/93]
 - ii. Any information that the Department requests to determine whether cause exists to modify, terminate or revoke this permit, or to determine compliance with the terms and conditions of this permit. [Reference Regulation No. 30 Section 6(a)(7)(v), dated 12/11/00]
 - iii. Copies of any record(s) required to be kept by this permit. [Reference Regulation No. 30 Section 6(a)(7)(v), dated 12/11/00]
- **Emission Trading.** No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [Reference Regulation No. 30 Section 6(a)(9), dated 12/11/00]
- **h.** Fees. The Company shall pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly. [Reference Regulation No. 30 Section 6(a)(8), dated 12/11/00 and Section 9, dated 12/11/00]
- **i.** <u>Inspection and Entry Requirements</u>. Upon presentation of identification, the Company shall allow authorized officials of the Department to perform the following:
 - 1. Enter upon the Company's premises where a source is located or an emissions-related activity is conducted, or where records that must be kept under the terms and conditions of this permit are located. [Reference Regulation No. 30 Section 6(c)(2)(i), dated 12/11/00]
 - 2. Have access to and copy, at reasonable times, any record(s) that must be kept under the terms And conditions of this permit. [Reference Regulation No. 30 Section 6(c)(2)(ii), dated 12/11/00]
 - 3. Inspect, at reasonable times and using reasonable safety practices, any facility, equipment (including monitoring and air pollution control equipment), practice, or operation regulated required under this permit. [Reference Regulation No. 30 Section 6(c)(2)(iii), dated 12/11/00]
 - 4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirements. [Reference Regulation No. 30 Section 6(c)(2)(iv), dated 12/11/00]

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- **Permit and Application Consultation**. The Company is encouraged to consult with Department personnel before submitting an application or, at any other time, concerning the operation, construction, expansion or modification of any installation, or concerning the required pollution control devices or system, the efficiency of such devices or system, or the pollution problem related to the installation. [Reference Regulation No. 30 Section 5(a)(1)(vii), dated 11/15/93]
- **k.** Permit Availability. The Company shall have available at the facility at all times a copy of this permit and shall provide a copy of this permit to the Department upon request. [Regulation No. 2 Section 8.1, dated 6/1/97]
- **l.** <u>Permit Renewal</u>. This permit expires <insert date from Page 1>, except as provided in Condition 2(1)(3) below. [Reference Regulation No. 30 Section 6(a)(2), dated 12/11/00]
 - 1. Applications for permit renewal shall be subject to the same procedural requirements, including those for public participation, *affected state* comment, and EPA review, that apply to initial permit issuance under Regulation No. 30 Section 7(a), except that an application for permit renewal may address only those portions of the permit that the Department determines require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. The Department may similarly, in issuing a draft renewal permit or proposed renewal permit, specify only those portions that will be revised, supplemented, or deleted, incorporating the remaining permit terms by reference. [Reference Regulation No. 30 Section 7(c)(1), dated 12/11/00]
 - 2. The Company's right to operate shall cease upon the expiration date unless a timely and complete renewal application has been submitted to the Department not earlier than eighteen (18) months nor later than twelve (12) months prior to the expiration date. [Reference Regulation No. 30 Section 7(c)(2), dated 12/11/00]
 - 3. If a timely and complete application for a permit renewal is submitted to the Department Pursuant to Regulation No. 30, Section 5(a)(2)(iv), dated 12/11/00, and Section 7(c)(1), dated 12/11/00, and the Department, through no fault of the Company, fails to take final action to issue or deny the renewal permit before the end of the term of this permit, then this permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time. [Reference Regulation No. 30 Section 7(c)(3), dated 12/11/00]

m. Permit Revision and Termination.

- 1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. except as provided under Condition 2(m)(3) [Minor Permit Modification], the filing of a request by the Company for a permit modification, revocation and reissuance, or termination, or of a modification of planned changes or anticipated noncompliance does not stay any term or condition of this permit. [Reference Regulation No. 30 Section 6(a)(7)(iii), dated 12/11/00 and 7(e)(1)(v), dated 12/11/00]
- 2. "Administrative Permit Amendment." When required, the Company shall submit to the Department a request for an administrative permit amendment in accordance with Regulation No. 30 Section 7(d) of the State of Delaware "Regulations Governing the Control of Air Pollution." [Reference Regulation No. 30 Section 7(d), dated 12/11/00]
- 3. "Minor Permit Modification." When required, the company shall submit to the Department

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an application for a minor permit modification in accordance with Regulation No. 30 Section 7(e)(1) and 7(e)(2) of the State of Delaware "Regulations Governing the Control of Air Pollution." [Reference Regulation No. 30 Section 7(e) (1), dated 12/11/00 and 7(e)(2), dated 12/11/00]

- i. For a minor permit modification, during the period of time between the time the Company makes the change or changes proposed in the minor permit modification application and the time that the Department takes action on the application, the Company shall comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period the Company, at its own risk, need not comply with the existing terms and conditions of this permit that it seeks to modify. [Reference Regulation No. 30 Section 7(e) (1) (v), dated 12/11/00 and 7(e)(2) (v), dated 12/11/00]
- ii. If the Company fails to comply with its proposed permit terms and conditions during this time period, the existing terms and conditions of this permit may be enforced against the Company. [Reference Regulation No. 30 Section 7(e) (1) (v), dated 12/11/00 and 7(e)(2) (v), dated 12/11/00]
- 4. "Significant Permit Modification." When required, the Company shall submit to the Department an application for a significant permit modification in accordance with Regulation No. 30 Section 7(e)(3) of the State of Delaware "Regulations Governing the Control of Air Pollution." [Reference Regulation No. 30 Section 7(e)(3), dated 12/11/00]
- 5. i. When the Company is required to meet the requirements under section 112(g) of the *Act* or obtain a preconstruction permit under the State of Delaware "Regulations Governing the Control of Air Pollution," the Company shall file a complete application to revise this permit within twelve (12) months of commencing operation of the construction or modification. [Reference Regulation No. 30 Section 5(a)(1)(iv), dated 12/11/00]
 - ii. When the Company is required to obtain a preconstruction permit, the Company may submit an application to revise this permit for concurrent processing. The revision request for this permit when submitted for concurrent processing shall be submitted to the Department with the Company's preconstruction review application or at such later time as the *Department* may allow. Where this permit would prohibit such construction or change in operation, the Company shall obtain a *permit revision* before commencing operation. [Reference Regulation No. 2 Sections 11.2(j), 11.5 and 12.4 dated 6/1/97, and Regulation No. 30 Section 5(a)(1)(iv), dated 12/11/00]
 - iii. Where an application is not submitted for concurrent processing, the Company shall obtain an operating permit under the State of Delaware "Regulations Governing the Control of Air Pollution" prior to commencing operation of the construction or modification to cover the period between the date operation is commenced and until such time as operation is approved under Regulation No. 30. [Reference Regulation No. 2 Section 2.1, dated 6/1/97]
- 6. "Permit Termination." The Company may at any time apply for termination of this permit in Accordance with Regulation No. 30 Section 7(h)(4) or Section 7(h)(5) of the State of Delaware "Regulations Governing the Control of Air Pollution." [Reference Regulation No. 30 Sections 7(h)(4), dated 12/11/00 and 7(h)(5) dated 12/11/00]

n. Permit Transfer.

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- 1. A change in ownership or operational control of this facility shall be treated as an administrative permit amendment where the Department has determined that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new owner has been submitted to the Department. [Reference Regulation No. 30 Section 7(d)(1)(iv), dated 12/11/00]
- 2. In addition to any written agreement submitted by the Company in accordance with Condition 2(n)(1), the Company shall have on file at the Department a statement meeting the requirements of 7 <u>Del.C.</u>, Chapter 79, Section 7902. This permit condition is state enforceable only. [Reference 7 <u>Del. C.</u>, Chapter 79, dated 7/20/92]
- 3. The written agreement required in Condition 2(n)(1) of this permit shall be provided to the Department within a minimum of thirty (30) calendar days prior to the specific date for transfer and shall indicate that the transfer is agreeable to both the current and new owner. [Reference Regulation No. 2 Section 7.1, dated 6/1/97]
- **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege. [Reference Regulation No. 30 Section 6(a)(7)(iv), dated 12/11/00]

p. Risk Management Plan.

- 1. In the event this stationary source, as defined in the State of Delaware "Accidental Release Prevention (ARP) Regulation" Section 4, is subject to or becomes subject to Section 5 of the "APR Regulation", dated January 11, 1999, the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in section 5.190. A certification statement shall also be submitted as mandated by Section 5.185. [Reference Regulation No. 30 Section 6(a)(4), dated 12/11/00, State of Delaware "Accidental Release Prevention Regulation", dated 1/11/99 and Delaware; approval of Accidental Release Prevention Program, Federal Register/Vol. 6, No. 11 pages 30818-22, dated June 8, 2001]
- 2. If this stationary source, as defined in State of Delaware "<u>ARP Regulation</u>" Section 4, is not Subject to Section 5 but is subject or becomes subject to Section 6 of the "<u>ARP Regulation</u>" dated January 11, 1999, the owner or operator shall submit a Delaware RMP to the State of Delaware's Accidental Release Prevention group by the date specified in Section 6.10 and required revisions as specified by Section 6.60(j). [Reference State of Delaware "<u>Accidental</u> Release Prevention Regulation", dated 1/11/99]

q. <u>Protection of Stratospheric Ozone</u>.

When applicable, this Facility shall comply with the following requirements: [Reference 40 CFR Part 82 "Protection of Stratospheric Ozone", revised as of 7/1/97]

- 1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - i. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a process that uses a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
 - ii. The placement of the required warning statement must comply with the requirements

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pursuant § 82.108.

- iii. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
- iv. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
- 2. Any person servicing, maintaining, or repairing appliances, except for motor vehicles, shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B. In addition, Subpart F applies to refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment:
 - i. Persons opening appliances for maintenance, service, repair or disposal must comply with the prohibitions and required practices pursuant to § 82.154 and § 82.156.
 - ii. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - iii. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - iv. Persons performing maintenance, service, repair, or disposal of appliances must certify with the Administrator pursuant to § 82.158 and § 82.162.
 - v. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152.)
 - vi. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
- 3. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR Part 82, Subpart F § 82.166.
- 4. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
- 5. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
 - The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. These systems are regulated under 40 CFR Part 82, Subpart F.
- 6. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative

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that is listed as acceptable in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program.

Severability. The provisions of this permit are severable. If any part of this permit is held invalid, the application of such part to other persons or circumstances and the remainder of this permit shall not be affected thereby and shall remain valid and in effect. [Reference Regulation No. 30 Section 6(a)(6), dated 12/11/00]

Condition 3. Specific Requirements.

- **a.** Emission Limitations/Standards and/or Operational Limitations/Standards. The Company shall comply with the emission limitations/standards and operational limitations/standards detailed in Condition 3 Table 1 of this permit. [Reference Regulation No. 30 Section 6(a)(1), dated 12/11/00]
- b. Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping). The Company shall maintain all of the information required under Conditions 3(b)(1) and 3(b)(2) of this permit for a minimum of five (5) years from such information's date of record. [Reference Regulation No. 30 Section 6(a)(3)(ii)(B), dated 12/11/00]
 - 1. i. Specific Requirements. The Company shall comply with the operational limitation(s), monitoring, testing and record keeping requirement(s) detailed in Condition 3 Table 1 which are in addition to those in Condition 3(b)(2). [Reference Regulation no. 30 Section 6(a)(1), dated 12/11/00m 6(a)(3)(i), dated 12/11/00]
 - ii. General Testing Requirements. Upon written request of the Department, the Company shall, at the Company's expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records and submit reports to the Department on the results of such sampling. [Reference Regulation No. 17, Section 2.2, dated 7/17/84]
 - iii. The Department must observe all stack emission testing and monitor certification testing including any test audits conducted on the monitors as part of the Quality Assurance Program for the results to be considered for acceptance unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test. . [Reference Regulation No. 17, Section 2.2, dated 7/17/84]
 - iv. All monitor performance specification testing and stack emissions testing shall require the submission of a "Source Sampling Guidelines and Preliminary Survey Form" which must be found acceptable to the Department at least thirty (30) days prior to the testing. [Reference Regulation No. 20, Section 1.4, dated 12/7/88]
 - v. The results of all monitor performance specification testing and stack emission testing shall be submitted to the Department, in triplicate, within ninety (90) days after completion of the testing. [Reference Regulation No. 20, Section 1.4, dated 12/7/88]
 - 2. <u>General Record Keeping Requirements</u>. The Company shall record all of the following information.
 - i. If required, for each operating scenario identified in Condition 3 Table 1 of this permit, a log that indicates the operating scenario under which each particular emission unit is operating. The Company shall, contemporaneously with changing from one operating scenario to another, record in this log the scenario under which it is operating. [Reference Regulation No. 30 Section 6(a)(10, dated 12/11/00]

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- ii. The following information to the extent specified in Condition 3- Table 1 of this permit. [Reference Regulation No. 30 Section 6(a)(3)(ii)(A), dated 12/11/00]
 - A. The date, place, and time of the sampling or measurements. [Reference Regulation No.30 Section 6(a)(3)(ii)(A)(aa), dated 12/11/00]
 - B. The date(s) analyses were performed [Reference Regulation No.30 Section 6(a)(3)(ii)(A)(bb), dated 12/11/00]
 - C. The company or entity that performed the analyses. [Reference Regulation No. 30 Section 6(a)(3)(ii)(A)(cc), dated 12/11/00]
 - D. The analytical techniques or methods used. [Reference Regulation No. 30 Section 6(a) (3)(ii)(A)(dd), dated 12/11/00]
 - E. The results of such analyses. [Reference Regulation No. 30 Section 6(a)(3)(ii)(A)(ee), dated 12/11/00]
 - F. The operating conditions as existing at the time of sampling or measurement. [Reference Regulation No. 30 Section 6(a)(3)(ii)(A)(ff), dated 12/11/00]
- iii. If the Company is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5); properly signed, contemporaneous operating log(s), or other relevant evidence which indicates that: [Reference Regulation No. 30 Section 6(g)(3), dated 12/11/00]
 - A. An emergency or malfunction occurred and the cause(s) of the emergency or malfunction,. [Reference Regulation No. 30 Section 6(g)(3)(i), dated 12/11/00]
 - B. The facility was at the time of the emergency or malfunction being operated in a prudent and professional manner and in compliance with generally accepted industry operations and maintenance procedures. [Reference Regulation No. 30 Section 6(g)(3)(ii), dated 12/11/00]
 - C. During the period of the emergency or malfunction the Company took all reasonable steps to minimize levels of emissions that exceeded the emission standard(s), or other requirement(s) of this permit. [Reference Regulation No. 30 Section 6(g)(3)(iii), dated 12/11/00]
- iv. A copy of the written notice required by Condition 3(c)(2)(iii) for each change made under Condition 4(c) [Operational Flexibility] of this permit shall be maintained with a copy of this permit. [Reference Regulation No. 30 Section 6(h)(1), dated 12/11/00]

c. Reporting and Compliance Certification Requirements.

1. Specific Reporting/Certification Requirements. The Company shall comply with the Reporting/Certification Requirement(s) detailed in Condition 3 – Table 1 of this permit, which are in addition to those of Conditions 3(c)(2) and 3(c)(3). Each report that contains any deviation(s) from the terms of Condition 3 – Table 1 shall identify the probable cause of the deviation(s) and any corrective action(s) or preventative measure(s) taken. [Reference Regulation No. 30 Sections 6(a)(3)(iii), dated 12/11/00, 6(a)(3)(iii)(C)(cc), dated 12/11/00, and 6(a)(3)(iii)(C)(dd), dated 12/11/00]

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2. General Reporting Requirements.

- The Company shall submit to the Department a report of any required monitoring not later than the first day of August (covering the period from January 1 through June 30) and the first day of February (covering the period July 1 through December 31) of each calendar year. Each report shall identify any deviation(s) from permit requirements since the previous report, any deviation(s) from the monitoring, record keeping and reporting requirements under this permit, and the probable cause of the deviation(s) and any corrective actions or preventative measures taken. If no deviation(s) has occurred such shall be stated in the report. [Reference Regulation No. 30 Section 6(a)(3)(iii)(A), dated 12/11/00 and (B), dated 12/11/00 and Section 6(a)(3)(iii)(C)(dd), dated 12/11/00]
- ii. In addition to the semiannual monitoring reports required under Condition 3(c)(2)(i), the Company shall submit to the Department supplemental written report(s)/notice(s) identifying all deviations from permit conditions, probable cause of the deviations, and any corrective actions or preventative measures as follows: [Reference Regulation No. 30 Sections 6(a)(3)(iii)(C)(cc), dated 12/11/00 and 6(a)(3)(iii)(C)(dd), dated 12/11/00]
 - A. If the Company is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of this permit, a notice of any deviation resulting from emergency or malfunction conditions shall be reported to the Department within two (2) working days of the time when the technology-based emission limitations were exceeded. Such notice shall contain a description of the emergency or malfunction, any steps taken to mitigate emission, and any corrective actions taken. [Reference Regulation No. 30 Sections 6(a)(3)(iii)C)(aa), dated 12/11/00 and 6(g)(3)(iv), dated 12/11/001
 - B. Emissions in excess of any permit condition or emissions which create a condition of a condition of air pollution shall be reported to the Department:
 - 1. Immediately upon discovery and after activating the appropriate site emergency plan to the Department's 24-hour complaint line or by facsimile (fax) if the emission poses an imminent and substantial danger to public health, safety, or the environment. [Reference Regulation No. 30 Section 6(a)(3)(iii)(C)(bb), dated 12/11/00]
 - 2. Immediately upon discovery to the Department's 24-hour complaint line. (State Enforceable Only). [Reference Regulation No. 30 Section 6(a)(3)(iii)(C)(bb), dated 12/11/00]
 - 3. In addition to complying with Condition 3.c.2.ii.B. 1 and 2 of this permit, the Company shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 calendar days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information: [Reference Regulation No. 30 Sections 6(a)(3)(iii)(C)(cc), dated 12/11/2000 and 6(a)(3)(iii)(C)(dd), dated 12/11/2000]
 - i. The name and location of the facility;
 - ii. The subject sources that caused the emissions;

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- iii. The time and date of the first observation of the excess emissions;
- iv. The cause and expected duration of the excess emissions;
- v. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission or operational limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
- vi. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report. The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

- C. Discharges to the atmosphere in excess of any quantity specified in the State of Delaware "Reporting of a Discharge of a Pollutant or an Air Contaminant" Regulation shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24-hour complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 3(c)(2)(ii)(B) of this permit are exempt from this reporting requirement. [Reference Regulation No. 30 Section 6(h)(1), dated 12/11/00]
- iii. Prior to making a change as provided in Condition 4 [Operational Flexibility] of this permit the Company shall give written notice to the Department and the EPA at least seven (7) calendar days before the change is to be made. [Reference Regulation No. 30 Section 6(h)(1), dated 12/11/00]
 - A. The seven (7) day period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. [Reference Regulation No. 30 Section 6(h)(1), dated 12/11/00]
 - B. If less than seven (7) calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the Company shall provide notice to the Department and to EPA as son as possible after learning of the need to make the change, together with the reason(s) why advance notice could not be given. [Reference Regulation No. 30 Section 6(h)(1), dated 12/11/00]
 - C. The written notice shall include all of the following information: [Reference Regulation No. 30 Section 6(h)(1), dated 12/11/00]
 - 1. The identification of the affected emission unit(s) and a description of the change to be made.
 - <u>2</u>. The date on which the change will occur.
 - <u>3</u>. Any change in emissions.

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- <u>4</u>. Any permit terms and conditions that are affected, including any new applicable requirements.
- iv. The Company shall submit to the Department an annual emissions statement in accordance with Regulation No. 17 Section 7 not later than April 30 of each year or other date as established by the Department unless an extension by the Department is granted. Such emissions statement shall cover the preceding calendar year. [Regulation No. 17, Section 7, dated 1/11/93]
- v. If required, the Company shall submit to the Department a progress report for applicable requirement(s) identified in Condition 5 Table 1 of this permit. Such reports shall be submitted not later than the first day of August (covering the period from January 1 through June 30) and the first day of February (covering the period July 1 through December 31) of each calendar year. Each progress report shall include the following: [Reference Regulation No. 30 Sections 5(d)(8), dated 12/11/00 and 6(c)(4), dated 12/11/00]
 - A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved. [Reference Regulation No. 30 Section 6(c)(4)(i), dated 12/11/00]
 - B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [Reference Regulation No. 30 Section 6(c)(4)(ii), dated 12/11/00]
- vi. Nothing herein shall relieve the Company from any reporting requirements under federal, state or local laws. [Reference Regulation No. 30 Section 6(a)(3)(iii)(C)(ee), dated 12/11/00]
- 3. General Compliance Certification Requirements.
 - i. Compliance with terms and conditions detailed in Condition 3 Table 1 of this permit shall be certified to the Department not later than the first day of February of each year unless the terms or conditions in Condition 3 Table 1 require compliance certifications to be submitted more frequently. Such certification shall cover the previous calendar year and shall be submitted on Form AQM-1001BB. The Compliance Certification shall include the following information: [Reference Regulation No. 30 Section 6(c)(5)(i), dated 12/11/00]
 - A. The identification of each term or condition of the permit that is the basis of the certification. [Reference Regulation No. 30 Section 6(c)(5)(iii)(A), dated 12/11/00]
 - B. The Company's current compliance status, as shown by monitoring data and other Information reasonably available to the Company. [Reference Regulation No. 30 Section 6(c)(5)(iii)(B), dated 12/11/00]
 - C. Such certification shall indicate whether compliance was continuous or intermittent during the covered period. [Reference Regulation No. 30 Section 6(c)(5)(iii)(C), dated 12/11/00]
 - D. The method(s) used for determining the compliance status of the Company, currently

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and over the reporting period as required by the monitoring, record keeping, and reporting required under Condition 3. [Reference Regulation No. 30 Section 6(c)(5)(iii)(D), dated 12/11/00]

- E. Such other facts as the Department may require to determine the compliance status of the source. [Reference Regulation No. 30 Section 6(c)(5)(iii)(E), dated 12/11/00]
- ii. Each compliance certification shall be submitted to the Department and EPA and shall be certified in accordance with Condition 2(a) of this permit. [Reference Regulation No. 30 Section 6(c)(5)(iv), dated 12/11/00]
- iii. Any additional information possessed by the Company that demonstrates noncompliance with any applicable requirement must also be used as the basis for compliance certifications. [Reference 62 FR 8314, dated 2/24/97]

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
aa. Emission Units No. 10: Wastewater Treatment Plant (WWTP) – Oily Sewer System 1. Volatile Organic Compounds (VOC): i. Emission Standard:	iii. Compliance Method: A. Compliance with the emission standards A	vi. Reporting: The Company shall comply with the following
1. Emission Standard: A. VOC emissions shall not exceed 0.26 tons in any twelve consecutive months. [Reference: Permit: APC-93/0350 (A 1) and 40 CFR 60.692-5 dated November 23, 1988] B. Benzene emissions shall not exceed 0.03 tons in any twelve consecutive months. [Reference: Permit APC-93/0350 (A 1)] ii. Operational Limitation: [Reference: Permit: APC-93/0350 (A 1)] A. Except as provided in the alternative compliance option below, the Company shall meet the following standards for each individual drain system in which waste is placed in accordance with §61.342(c)(1)(ii): 1. The Company shall operate and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device. 2. The cover shall meet the following requirements: i. The cover and all openings (e.g., access hatches, sampling ports) shall be designed to operate with no detectable emissions as indicated by	 A. Compliance with the emission standards A and B and operational limitation F. 2. shall be based on Monitoring/Testing. B. Alternately, the Company may analyze the daily monitoring data to establish a carbon canister change out schedule so that the carbon in each carbon adsorption location is replaced with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. The company shall obtain the Department's written approval prior to implementing any such replacement schedule. C. Compliance with operational limitation A shall be based on Monitoring/Testing. D. Compliance with operational limitation B, C, D, E, F.1. and F.3. shall be based on recordkeeping. iv. Monitoring/Testing The Company shall comply with the following monitoring/testing requirements: 	Reporting requirements: A. Annual reports that updates the information required by 40 CFR § 61.357(a)(1) through (3). B. Quarterly certifications that all required inspections have been carried out in accordance with the requirements of Part 61, Subpart FF. C. Quarterly reports that include each occurrence when the carbon in a carbon adsorber system is not replaced in accordance with compliance methods A or B. D. Annual reports that summarizes all inspections required by 40 CFR § 61.346 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken. E. Compliance with the reporting requirements of A, B, C and D of this condition are satisfied by submitting to the Department copies of the quarterly

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h). ii. Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair. iii. If the cover and closed-vent system operate such that the individual drain system is maintained at a pressure less than atmospheric pressure, then paragraph (A)(2)(ii) does not apply to any opening that meets all of the following conditions: A. The purpose of the opening is to provide dilution air to reduce the explosion hazard; B. The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year	A. The carbon adsorbers shall be monitored daily in accordance with the monitoring protocol in Attachment I to APC-93/0350 (A 1). and by replacing the carbon immediately upon breakthrough. For the purpose of this paragraph, "breakthrough" is defined as any reading of 50 ppm volatile organic compounds measured after the first canister at each location, and "immediately" shall mean 8 hours for canisters 55 gallons or less, 24 hours for canisters between 55 gallons and 20,000 pounds and 48 hours for canisters greater than 20,000 pounds. Attachment 2 to this permit specifies the location and size of each canister set. B. The Company shall conduct periodic Visual inspections in accordance with Section 61.346(a)(2). [Reference: 40 CFR 61.346 dated 1/7/93] C. The Company shall annually monitor the system for no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). Reference: 40 CFR 61.346 dated 1/7/93] v. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b) unless a longer period is otherwise specified: [Reference: Permit APC-93/0350 (A 1)] A. Engineering design documentation for the carbon canister control devices	vii. Certification: None in addition to those required by Condition 3 (c)(iii)

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
by the methods specified in §	installed on the OWS system. The	
61.355(h); and	documentation shall be retained for the	
<u>C.</u> The pressure is monitored	life of the control equipment.	
continuously to ensure that the	B. A statement signed and dated by the	
pressure in the individual drain	owner or operator certifying that the	
system remains below	closed-vent systems and control device	
atmospheric pressure.	are designed to operate at the	
B. The closed-vent system and control	documented performance level when the	
device shall be designed and operated in	waste management unit vented to the	
accordance with § 61.349.	control devices are or would be operating	
C. Each cover seal, access hatch, and all	at the highest load or capacity expected	
other openings shall be checked by	to occur. The documentation shall be	
visual inspection initially and quarterly	retained for the life of the control	
thereafter to ensure that no cracks or	equipment.	
gaps occur and that access hatches and	C. If engineering calculations are used to	
other openings are closed and gasketed	determine control device performance in	
properly.	accordance with § 61.349(c), then a	
D. Except as provided in § 61.350, when a	design analysis for the control device that	
broken seal or gasket or other problem is	includes for example, specifications,	
identified, or when detectable emissions	drawings, schematics, and piping and	
are measured, first efforts at repair shall	instrumentation diagrams prepared by the	
be made as soon as practicable, but not	owner or operator, or the control device	
later than 15 calendar days after	manufacturer or vendor that describe the	
identification.	control device design based on	
E. As an alternative to complying with	acceptable engineering texts. The design	
Operational limitations A through D, the	analysis shall address the following vent	
Company may elect to comply with the	stream characteristics and control device	
following requirements:	operating parameters for the carbon	
1. Each drain shall be equipped with	adsorption system: the design analysis	
water seal controls or a tightly	shall consider the vent stream	
sealed cap or plug.	composition, constituent concentration,	
2. Each junction box shall be equipped	flow rate, relative humidity, and	
With a cover and may have a vent	temperature. The design analysis shall	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	1 6 1
pipe. The vent pipe shall be at least	also establish the design exhaust vent	
90 cm (3 ft) in length and shall not	stream organic compound concentration	
exceed 10.2 cm (4 in) in diameter.	level or the design exhaust vent stream	
i. Junction box covers shall have a	benzene concentration level, capacity of	
tight seal around the edge and shall	carbon bed, type and working capacity of	
be kept in place at all times, except	activated carbon used for carbon bed, and	
during inspection and maintenance.	design carbon replacement interval based	
<u>ii.</u> One of the following methods shall	on the total carbon working capacity of	
be used to control emissions from	the control device and source operating	
the junction box vent pipe to the	schedule. The documentation shall be	
atmosphere:	retained for the life of the control	
A. Equip the junction box with a	equipment.	
system to prevent the flow of	E. A record for each visual inspection	
organic vapors from the	required by operational limitations C or	
junction box vent pipe to the	E. <u>4.</u> that identifies a problem (such as a	
atmosphere during normal	broken seal, gap or other problem) which	
operation. An example of such	could result in benzene emissions. The	
a system includes use of water	record shall include the date of the	
seal controls on the junction	inspection, waste management unit and	
box. A flow indicator shall be	control equipment location where the	
installed, operated, and	problem is identified, a description of the	
maintained on each junction	problem, a description of the corrective	
box vent pipe to ensure that	action taken, and the date the corrective	
organic vapors are not vented	action was completed.	
from the junction box to the	F. A record for each test of no detectable	
atmosphere during normal	emissions required by operational	
operation.	limitations A. 2. i. and F. 1. The record	
<u>B.</u> Connect the junction box vent	shall include the date the test was	
pipe to a closed-vent system	performed, background level measured	
and control device in	during test, and maximum concentration	
accordance with § 61.349.	indicated by the instrument reading	
<u>3.</u> Each sewer line shall not be open to	measured for each potential leak	
the atmosphere and shall be covered	interface. If detectable emissions are	

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Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
or enclosed in a manner so as to	measured at a leak interface, then the	
have no visual gaps or cracks in	record shall also include the waste	
joints, seals, or other emission	management unit, control equipment, and	
interfaces.	leak interface location where detectable	
<u>4.</u> Equipment installed in accordance	emissions were measured, a description	
with paragraphs $(E)(\underline{1})$, $(E)(\underline{2})$, or	of the problem, a description of the	
(E)(3) or § 61.346 shall be	corrective action taken, and the date the	
inspected as follows:	corrective action was completed.	
<u>i.</u> Each drain using water seal	G. Dates of startup and shutdown of the	
controls shall be checked by	closed-vent systems and control devices	
visual or physical inspection	and periods when the closed-vent system	
initially and thereafter quarterly	and control device are not operated as	
for indications of low water	designed.	
levels or other conditions that	H. Records of dates and times when the	
would reduce the effectiveness of	control devices are monitored, when	
water seal controls.	breakthrough is measured, and shall	
<u>ii.</u> Each drain using a tightly sealed	record the date and time that the existing	
cap or plug shall be visually	carbon in the control devices are replaced	
inspected initially and thereafter	with fresh carbon.	
quarterly to ensure caps or plugs		
are in place and properly		
installed.		
iii. Each junction box shall be		
visually inspected initially and		
thereafter quarterly to ensure that		
the cover is in place and to ensure		
that the cover has a tight seal		
around the edge.		
iv. The unburied portion of each		
sewer line shall be visually		
inspected initially and thereafter		
quarterly for indication of cracks,		
gaps, or other problems that could		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		Reporting/Compliance Certification
repair of the waste management unit cannot be completed without a shutdown of the Carbon Adsorption Control System.		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
ab. Emission Units No. 10: Wastewater Treatment Plant (WWTP) Unit No. 10: API/CPI Separators, Equalization Tanks, Spill Diversion Tanks, Floatation Clarifier, Flocculation Tanks and Flash Mix Tank 1. Volatile Organic Compounds (VOC): i. Emission Standard for API/CPI Separators: [Reference: Permit: APC-81/1008, 40 CFR 60.692-5 dated November 23, 1988 and 40 CFR 61.349(a)(2)(ii)	iv. Compliance Method: A. Compliance with emission standards A and B shall be demonstrated by following the monitoring protocol that is Attachment 1 to	vii: Reporting: [Reference: 40 CFR 61.357 dated 1/7/93] A. In accordance with Section 61.357(d)(8), the Company shall submit an annual
A. VOC emissions shall not exceed 3.4 tons in any twelve consecutive months. B. Benzene emissions shall not exceed 0.09 tons in any twelve consecutive months.	Permit: APC-81/1008. [Reference: Permit: APC-81/1008] B. Compliance with the equipment standards/operational limitations for API/CPI Separators, Equalization Tanks, Spill Diversion Tank, Flocculation Tanks	report that summarizes all inspections required by Sections 61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is
 ii. Equipment Standard/Operational Limitation for API/CPI Separators: [Reference: 40 CFR 61.351 and 40 CFR 61.352 dated 1/7/93 Permits: APC-81/1008 and APC-81/1009] A. All Fixed-Roofs shall be operated and maintained according to the following 	and Flash Mix Tank shall be based on the monitoring/testing and recordkeeping requirements. [Reference: Regulation 30, Section (6)(a)(3), dated 12/11/00] v. Monitoring/testing: [Reference: Permits: APC-	identified, including information about repairs or corrective action taken. B. Each occurrence when the carbon in any carbon adsorber is not replaced after breakthrough has occurred. C. A record for each test of no detectable
requirements: 1. The cover and all openings (access hatches, sampling ports, gauge wells, etc.) shall operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above	81/1008, 40 CFR 60.692-5 dated November 23, 1988 and 40 CFR 61.349(a)(2)(ii) dated January 7, 1993] A. Measurement of primary seal gaps shall be performed within sixty (60) calendar days after initial installation of the	emissions in accordance with 40 CFR 61.355(h). D. Periods during API bay outages when a water seal is not established.
background, as determined initially, and thereafter at least one (1)-year intervals by the methods specified in 40 CFR 61.355(h) (1993). 2. Each opening shall be maintained in a closed, sealed position (covered by a lid that is gasketed and latched) at all times	floating roofs and introduction of refinery wastewater or sixty (60) calendar days after the equipment is placed back into service, and once every five (5) years thereafter. Measurement of secondary seal gaps shall be performed within sixty (60) calendar days after the	In addition to those listed in Condition 3(c)(3) of this permit, the Company shall retain a statement signed and dated by the Company certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to

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Emission Limitation(s)/Standard(s) and/or Compliance Determination Methodology		
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
1	applicable) and Record Keeping	
that waste is in the oil-water separator, except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance or repair. B. Each floating roof shall be equipped with a closure device between the wall of the Separator and the roof edge. The closure device shall consist of a primary seal and a secondary seal. C. The primary seal on each floating roof shall be a liquid-mounting seal meeting the	equipment is placed in service, and once every year thereafter. B. The Company shall perform the following inspections on the flocculation, spill diversion and equalization tanks: 1. Semiannual inspections to ensure compliance with the equipment standards/operational limitations for the flocculation, spill diversion and equalization tanks (including visual inspection of the secondary seal gap); and measure the secondary seal	the control device is, or would be, operating at the highest load or capacity expected to occur. [Reference: 40 CFR 61.356(f)(1) dated 1/7/93]
following requirements: 1. A liquid-mounted seal means a foam-filled or liquid-filled seal mounted in contact with the liquid between the wall of the Separator and the floating roof. 2. The gap width between the primary seal and the Separator wall shall not exceed 3.8 cm (1.5 in.) at any time. 3. The total gap area between the primary seal and the Separator wall shall not exceed 67 cm²/m (3.2 in.²/ft.) of Separator wall perimeter. D. The secondary seal on each floating roof	gap annually according to the procedure described in paragraph C below. C. Gap area shall be calculated by physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (0.125 in) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and the tank wall. Summing these gap areas will determine the accumulated gap area.	
shall be above the primary seal and cover the annular space between the floating roof and the wall of the Separator. 1. The gap width between the secondary seal and the Separator wall shall not exceed 1.3 cm (0.5 in.) at any point. 2. The total gap area between the secondary seal and the Separator wall	D. During periods when any API bay is uncovered, conduct a daily check of the presence of a water seal to ensure that vapors from other bays are not escaping to the atmosphere through the out of service bay. vi. Recordkeeping:	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
shall not exceed 6.7 cm²/m (0.32 in.²/ft.) of Separator wall perimeter. E. The maximum gap width and total gap area shall be determined by the methods and procedures specified in 40 CFR 60.696(d). F. Necessary repairs shall be made within thirty (30) calendar days of identification of seals not meeting the requirements listed in paragraphs (C) and (D) of this Condition. G. Except as provided in operational limitation I, each opening in the roof shall be equipped with a gasketed cover, seal or lid, which shall be maintained in a closed position at all times, except during inspection and maintenance. H. The roof shall be floated on the liquid (i.e., off the roof supports) at all times except during a condition of low flow rate. I. The floating roof may be equipped with one (1) or more emergency roof drains for removal of storm water. Each emergency roof drain shall be fitted with a slotted membrane fabric cover that covers at least ninety percent (90%) of the drain opening area, or a flexible fabric sleeve seal. J. Access doors and other openings shall be visually inspected initially and semiannually thereafter to ensure that there is a tight fit around the edges and to identify other problems that could result in VOC emissions. K. When a broken seal or gasket on an access door or other opening is identified, it shall be	A. A statement signed and dated by the Company certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load or capacity expected to occur. [Reference: 40 CFR 61.356(f)(1) dated 1/7/93] B. For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device, such as a carbon canister, records of the design analysis which takes into account the vent stream composition, constituent concentration, flow rate, relative humidity and temperature. Records shall also be maintained for the following parameters established by the design analysis: the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. [Reference: 40 CFR 61, Subpart FF, Section 61.356(f)(2)(G) dated 1/7/93] C. A record for each test of no detectable emissions in accordance with 40 CFR 61.355(h). [Reference: 40 CFR 61, Subpart FF, Section 61.355(h) dated 1/7/93]	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
repaired as soon as possible, but not later than thirty (30) calendar days after it is identified, except if the repair is technically impossible without a complete or partial Refinery or process unit shutdown. Repair of such equipment shall occur before the end of the next Refinery or process unit shutdown. L. The Closed-Vent System shall be operated and maintained according to the following requirements: 1. Operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined initially, and thereafter at least at one (1)-year intervals by the methods specified in 40 CFR 61.355(h). 2. All gauging and sampling devices shall be gas-tight, except when gauging or sampling is taking place. 3. One (1) or more devices which vent directly to the atmosphere may be used on the Closed-Vent System, provided that each device remains in a closed, sealed position during normal operations, except when the device needs to open to prevent physical damage or permanent deformation of the Closed-Vent System resulting from malfunction of the Unit in accordance with good engineering and safety practices for handling flammable, explosive or other hazardous materials.	D. The Company shall maintain records of all inspections and seal gap measurements of the equalization tanks and spill diversion tank in accordance with the procedures in Section 60.115b. [Reference: 40 CFR 60.115b dated April 8, 1987, 40 CFR 61.351 and Permit: APC-81/1009] E. The Company shall maintain records of all inspections and seal gap measurements of oil water separator floating roofs in accordance with NSPS Alternative Standards for oil waste separators. [Reference: 40 CFR 60.693-2 dated August 18, 1995, 40 CFR 61.352] F. Log of operating hours when any API bay is taken out of service and the operator's verification of the presence of a water seal. [Reference: Permit: APC-81/1008]	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
M. The Closed-Vent and Carbon		
Adsorption Control Systems shall be		
operated at all times when waste is		
placed in the waste management unit		
vented to the Carbon Adsorption		
Control System, except when		
maintenance or repair of the waste		
management unit cannot be completed		
without a shutdown of the Carbon		
Adsorption Control System.		
N. When an API Separator bay is		
uncovered and out of service for		
maintenance or repair, its water seal		
shall be established immediately and		
maintained continuously for the entire		
duration of the out of service period.		
P. The carbon adsorption system shall be		
operated and maintained to recover or		
control the VOC emissions vented to it		
with an efficiency of 95 weight percent		
or greater or to recover or control the		
benzene emissions vented to it with an		
efficiency of 98 weight percent or		
greater.		
iii. Equipment Standard/Operational Limitations		
for Equalization, Flocculation and Spill		
Diversion Tanks: [Reference: 40 CFR		
60.112b(a)(2) dated April 8, 1987, 40 CFR 61.351 Permit: APC-81/1009, and Permit:APC-94/0710-		
CONSTRUCTION, dated April 10, 1994]		
A. The two equalization and one spill		
diversion tank shall be fitted with:		
1. A continuous secondary seal extending		
from the floating roof to the tank wall		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
(rim-mounted secondary seal); or 2. A closure or other device approved by the Department as part of the State Implementation Plan ("SIP") that controls VOC emissions with an effectiveness that is equal to or greater than the tank's continuous secondary seal.		
B. Seals and seal fabric shall have no holes, tears or other openings.		
C. Seals must be intact and uniformly in place around the circumference of the floating roof, between the floating roof and the tank wall.		
D. The width of any portion of any gap shall not exceed 1.27 centimeters (cm) (0.5 inch) and the accumulated area of gaps exceeding 0.32 centimeters (cm) (0.125 inch) in width between the secondary seal and the tank wall shall not exceed 21.2 square centimeters per meter (cm²/m) (1.0 square inch per foot) (in²/ft) of tank diameter.		
E. All openings in the external floating roof, except for automatic bleeder vents and leg sleeves, shall be equipped with: 1. Covers, seals or lids in the closed position, except for when the openings are in actual use; and, 2. Projections into the tank that remain below the liquid surface at all times.		
F. Automatic bleeder vents must be closed at all times, except when the roof is		

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	Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	being floated-off the leg supports. [Reference: 40 CFR 60.693-2 dated August 18, 1995, 40 CFR 61.352, and Permit: <u>APC-81/1008</u>]		
ac.	Emission Units No. 10: Wastewater Treatment Plant (WWTP) – Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU); Emission Point 10-1		
1.	Particulate Matter: i. Emission Standard: The Company shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mm BTU heat input, maximum 2-hour average. [Reference: Regulation No. 4 Section 2.1 dated 2/1/81]	 iii. Compliance Method: A. Compliance with the emission standard shall be based on the fuel usage and quality. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] iv. Monitoring/Testing: The Company shall monitor the fuel flow to the VCU continuously. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] v. Recordkeeping: The Company shall maintain the rolling twelve month fuel usage by the VCU. 	vi. Reporting: None in addition to those required by Condition 3(c)(2) of this permit. vii. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.
2.	Sulfur dioxide (SO ₂): i. Operational Limitation: In addition to an inerting stream identified as Waste Stream "A" in Drawing No. B-VC-A05733-150, commercial grade, desulfurized propane shall be the only fuel fired in this unit. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Approval of NSPS Subpart J Alternate Monitoring Plans dated October 31, 2002].	 ii. Compliance Method: Compliance with the operational limitation shall be based on monitoring and recordkeeping.	v. Reporting: None in addition to those required by Condition 3(c)(2) of this permit. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]. vi. Certification: None in addition to those required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
 3. Nitrogen oxides (NO_x): Operational Limitation: [Reference Permit: APC-94/0710]] A. Propane usage by the VCU shall not exceed 260 gallons per hour on a twelve month rolling average basis, which will ensure that NOx emissions do not exceed 21.6 tons in any twelve consecutive months. B. The VCU shall be maintained and operated in accordance with the manufacturer's specifications. 	iv. Recordkeeping: [Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00 and Approval of NSPS Subpart J Alternate Monitoring Plans dated October 31 2002] The Company shall maintain the following records: A. Type of fuel burned in the VCU. B. Monitored data required by the AMP. iii. Compliance Method: A. Compliance with the operational limitations A and B shall be based on recordkeeping. [Reference: Regulation No. 30 Section 6(a)(3)I(i)(B) dated 12/11/00] iv. Monitoring/Testing: The Company shall continuously monitor the fuel usage by the VCU. [Reference: Regulation No. 30 Section 6(a)(3)(ii)(B) dated 12/11/00] v. Recordkeeping: [Reference: Regulation No. 30 Section 6(a)(3)(ii) dated 12/1100] The Company shall maintain the following records: A. Fuel usage.	vi. Reporting None in addition to those required by Condition 3(c)(2) of this permit. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/01.] vii. Certification: None in addition to those required by Condition 3(c)(3) of this permit.
 4. Volatile organic compounds (VOC) i. Emission Standard: VOC emissions shall not exceed 20 ppmv (dry) corrected to 3 percent O₂ and 0.28 tons in any rolling twelve month period. [Reference:Permit:APC-94/0710 and 40 CFR 61.349(a)(2)(i)(B) dated January 7, 1993] ii. Operational Limitation: A. The VCU shall not operate below a 	 iv. Compliance Method: [Reference: Permit: APC-94/0710] and 40 CFR 61.354(c)(1) dated January 7, 1993] A. Compliance with the emission standard shall be based on Monitoring/Testing. B. Compliance with the operational limitation A shall be based on compliance with the minimum operating temperature of 1300°F (defined as no more than 50°F below 1300°F in any rolling three hour period of operation). 	vii. Reporting: [Reference: 40 CFR 61.357 dated 1/7/93] In addition to those required by Condition 3(c) of this permit, the Company shall submit the following reports: A. In accordance with Section 61.357(c)(8), the Company shall submit an annual report that summarizes all inspections required by Sections 61.342 through 61.354 during which detectable emissions

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Temperature of 1,300°F except during a 4 hour start up period. Start up is defined as the time when the waste gases are introduced into the VCU. [Reference:Permit:APC-94/0710] B. The dissolved nitrogen floatation and flocculation system, oil recovery system and VCU shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). [Reference: 40CFR 61.351 and 40 CFR 61.352 dated 1/7/93 and APC-94/0710]. C. The VCU shall be operating properly whenever any of the following equipment is in operation except during periods of maintenance on the VCU or during emergency situations that require the shutdown of the VCU: Crude Recovery Tank (372-TC-M) Sludge Holding Tank (349-TM-M) DNF Tank 326 DNF Tank 305 DNF Tank 306 Slop Oil Tank 10-D-109 Slop Oil Tank 10-D-202 Day Tank 356-TC-3 Day Tank 357-TC-3 Day Tank 358-TC-3	 C. Compliance with the operational limitation	are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about repairs or corrective action taken. B. Quarterly reports outlining each three (3) hour period of operation during which the average temperature of the gas stream in the combustion zone of the VCU, as measured by the temperature monitoring device, is more than 50°F (28°C) below the design combustion zone temperature of 1300°F (704°C). viii. Certification: In addition to those listed in Condition 3(c)(3) of this permit, the Company shall retain a statement signed and dated by the Company certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load of capacity expected to occur. [Reference: 40 CFR 61.356(f)(1) dated 1/7/93.]

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temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have an accuracy of ± 1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. [Reference: Permit: APC-94/0710, and 40 CFR 61.354(c)(1) dated January 7, 1993] 5. Visible emissions:	emissions in accordance with 40 CFR 61.355 (h). D. Maintain continuous records of the temperature of the gas stream in the combustion zone of the VCU and record of all three (3) hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28°C below the combustion zone temperature. ii. Compliance Method:	v. Reporting Requirement:
i. Emission standard: The Company shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84].	Compliance shall be demonstrated by monitoring and testing requirements, and recordkeeping. [Reference: Reg. No. 30 Section 6(a)(3) dated 12/11/00]. iii. Monitoring/Testing: A. The Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1. If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph B below. 2. If no visible emissions are observed, no further action is required. B. If required under paragraph A above, the Company shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteensecond intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation	None in addition to those required by Condition 3(c)(2). vi. Certification Requirement: None in addition to Condition 3(c)(3).

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ad. Emission Units No. 10: Gasoline Dispensing Facility 1. Volatile Organic Compounds (VOC): i. Emission Standard A. During loading of the aboveground storage tank, the Stage I vapor recovery system for the 4000 gallon aboveground storage tank shall be returned by way of the vapor balance system which returns no less than 90 percent by weight of the vapors to a vapor tight delivery vessel. [Reference: Permit: APC-95/0862-OI] ii. Operational Limitation: [Reference: Permit: APC-95/0862-OII] A. All gaskets and seals in the vapor balance system of the Dual Point Stage I Vapor Recovery System shall be in place and in good condition so as to prevent gasoline vapors from being released when the vapor balance system is not in	iii. Compliance Method: A. Compliance with the emission standard A. shall be based on compliance with the operational limitation. [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] B. Compliance with the operational limitations shall be based on recordkeeping. [Reference Regulation No. 30 Section 6(a)(3)(ii)(B) dated 12/11/00] iv. Monitoring/Testing: The following tests shall be carried out at the prescribed frequencies: [Reference: Permit: APC-95/0863-011 and Reg. No. 24, Section 36, dated 1/11/02] A. A pressure/decay leak test as described in Regulation 24, Section 36 paragraph (d)(1)(i)(A) once every five years. B. An annual Healy Aboveground Applications System Test. C. At least one representative from the Company must have been trained to operate and	vi. Reporting: A. In addition to those required by Condition 3(c)(2) of this permit, the Company shall also: 1. Report excess emissions to the Department's Underground Storage Tank Branch. 2. Provide written notification to the Department 10 working days prior to any test operation, unless permission is granted to the contrary; and 3. Report test failures to the Department within 24 hours of the failure. 4. Within 30 days of a test date, submit to the Department the actual test date, the testing company's name, address and phone number, and, if any corrective action was performed by the testing company, all information specified in Regulation 24, Section 36, paragraph (f)(4). [Reference: Permits: APC-95/0862-OI

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
 B. For the Healy Stage II Vapor Recovery System: The maximum length of the hose must not exceed 13 feet; Then maximum dispensing rate is limited to 10 gallons or less per minute; and Model 200 nozzles shall be used with the Model 100 Jet Pump. 	accordance with Regulation 24, Section 36 paragraph (c)(2). D. Personnel trained pursuant to Monitoring/Testing requirement (C) shall perform daily routine maintenance inspections is accordance with manufacturers specifications. v. Recordkeeping: [Reference: Permit: APC-95/0863-011 and Reg. No. 24, Section 36, dated 1/11/02] A. The Company shall maintain the following records for at least 3 years from the date of record and shall be made immediately available to the Department upon request: 1. Record of daily visual inspections and any maintenance conducted on the Stage II system. 2. Pressure/decay and the Healy Aboveground Applications System Test results 3. Daily records showing the quantity of gasoline delivered to the site. 4. Proof of attendance and completion of a training program as specified in Regulation 24, Section 36 paragraph (c)(2)(ii). 5. Compliance records, including warnings, notices of violation and other compliance records issued by the Department to the facility. B. A conspicuous sign shall be posted with instructions on how to correctly dispense gasoline. C. A conspicuous "Out of Order" sign must be posted on any nozzle associated with any part of the Stage II system that is found to be defective.	vii. Certification: None in addition to those required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	D. The Department emergency reporting number shall be posted conspicuously.	
b. Emission Units No. 15: Marine Vapor Recovery (MVR) System; Emission points 15-1 and 15-2		
1. Conditions Applicable to Multiple Pollutants i. Operational Limitation: A. Commercial grade, desulfurized natural gas shall be the only fuel fired in this unit. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] B. At all times, including periods of startup, shutdown, and malfunction, the Company shall maintain and operate the equipment and processes covered by this Permit, including all structural and mechanical components of all equipment and processes and all associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]	ii. Compliance Method: A. Compliance with the operational limitation A shall be based on the fuel type and quality. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] B. Compliance with operational limitation B shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances, including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. iii. Monitoring/Testing: The Company shall monitor the fuel flow to the MVR VCU continuously. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] iv. Recordkeeping: The Company shall maintain a record of the type of fuel burned in the MVR VCU and hourly fuel flows. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]	v. Reporting: None in addition to those required by Condition 3(c)(2) of this permit. vi. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.
Particulate Matter: i. Emission Standard:	ii. Compliance Method:A. Compliance with the Emission Standard	v. Reporting: None in addition to those required by

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
The Company shall not cause or allow the emission of particulate matter in excess of 0.3lb/mmBTU heat input, maximum 2-hour average. [Reference: Regulation No. 4 Section 2.1 dated 2/1/81]	shall be based on compliance with Condition 3, Table 1 b.1.i. A [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] iii. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1. b. 1.iii. iv. Recordkeeping Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1. b. 1 iv.	Condition 3(c)(2) of this permit. vi. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.
3. Nitrogen oxides (NO _x) i. Emission Standard: NO _x emissions shall not exceed 61.3 lb/hour and 22.3 tons in any twelve consecutive months. [Reference: Permit: APC- 95/0471 (A 2)]	 iii. Compliance Method: A. Compliance with the emission standard shall be based on Monitoring/Testing and Recordkeeping requirements. [Reference: Regulation No. 30 Section 6(a)(3)(i()(B) dated 12/11/00] iv. Monitoring/Testing: A. The Company shall conduct a Department approved stack test once every 5 years. [Reference: Permit APC-95/0471 (A 2)2] v. Recordkeeping: The Company shall maintain all stack test results in accordance with Condition 3(b). 	. Reporting: In addition to those required by Condition 3(c)(2) of this permit, the Company shall submit a report of the stack test results within 90 days of completion of the test. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]. vii. Certification: None in addition to those required by Condition 3(c)(3) of this permit.
Carbon monoxide (CO): i. Emission Standards:	ii. Compliance Method: A. Compliance with the emission standard	v. Reporting: In addition to those required by Condition

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
CO emissions shall not exceed 153.2 lb/hour and 55.7 tons in any twelve consecutive months. [Reference: Permit: APC-95/0471 (A 2)]	shall be based on Monitoring/Testing and Recordkeeping requirements. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] iii. Monitoring/Testing: A. The Company shall conduct a Department approved stack test once every 5 years. [Reference: Permit APC-95/0471 (A 2)] iv. Recordkeeping: The Company shall maintain all stack test results in accordance with Condition 3(b).	3(c)(2) of this permit, the Company shall submit a report of the stack test results within 90 days of completion of the test. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]. vi. Certification: None in addition to those required by Condition 3(c)(3) of this permit.
 5. Volatile Organic Compounds (VOCs) i. Emission Standard: A. VOC emissions shall not exceed 151 tons in any twelve consecutive months. [Reference: Permit: APC-95/0471 (A 2)] B. Vapors displaced during barge loading operations shall be collected and routed through the marine vapor control system and shall be reduced by 98 weight percent or to 1000 ppmv of VOC. ii. Operational Limitations: [Reference: Permit: APC-95/0471 (A 2), 40 CFR §60.18 dated October 17, 2000, 40 CFR §63.11 dated October 17, 2000 and 40 CFR 63.56(b)(1), (b)(3) and (b)(3) dated September 19, 1995] A. Barge loading of gasoline products shall not exceed the following rates: 1. 35,000 barrels hour when loading simultaneously at two piers; and 	iii. Compliance Method: A. Compliance with Emission Standard A and Operational Limitation H shall be based on all of the following: [Reference:Permit:APC-95/0471 (A 2), 40 CFR §60.18 dated October 17, 2000] 1. Operating the VCUs in accordance with 40 CFR 60.18, and with the continuous presence of a flame at the pilot during the entire loading cycle. 2. Compliance with all the operational limitations. 3. Operating a calibrated and maintained sensing device to indicate the continuous presence of a flame at the pilot light during the entire loading cycle. B. Compliance with Emission Standard B shall be based upon monitoring/testing and	vi. Reporting Requirements: In addition to those required by Condition 3(c)(2) of this permit, the Company shall submit an annual report of the source's control efficiency using the procedures specified in 40 CFR § 63.656(1), based on the source's actual throughput. [Reference: 40 CFR §63.567(j)]. vii. Certification: None in addition to that required by Condition 3(c)(3) of this permit. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
 2. 25,000 barrels per hour at one pier B. The rolling twelve month throughput of gasoline products shall not exceed 25,463,000 barrels. C. The vapors collected at one loading berth shall not pass through another loading berth to the atmosphere. D. Marine tank vessel loading operations shall be limited to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system. E. Marine tank vessel loading operations shall be limited to those vessels that are vapor tight and that are connected to the vapor collection system. F. Marine vessel loading operations may be carried out only when the marine vessels have been connected to the loading rack's vapor collection system and which have current vapor tightness certification in accordance with the requirements of 40 CFR 63.563(a)(4) and have been demonstrated to be vapor tight within the preceding (12) months. G. No barge loading operations of gasoline products shall be conducted unless the MVR VCUs is/are operating properly. Proper operation is defined as operating the VCUs in accordance with 40 CFR 60.18, and with the continuous presence of a flame at the pilot during the entire loading operations shall H. Marine vessel loading operations shall 	recordkeeping requirements to demonstrate the 98% destruction efficiency or by CEMS to demonstrate compliance with the 1000 ppmv limit. C. Compliance with the operational limitations shall be based on the monitoring/testing and recordkeeping requirements of this condition. [Reference: Regulation No. 30 Section 6(a)(3)(ii)dated 12/11/00] iv. Monitoring/Testing: [Reference/Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The Company shall continuously monitor the hourly loading rate of all gasoline products at each pier during loading operations. B. A sensing device shall be calibrated, maintained and operated to indicate the continuous presence of a flame at the pilot light during the entire loading cycle. [Reference:Permit:APC-95/0471 (A 2), 40 CFR §60.18 dated October 17, 2000, 40 CFR §63.11 dated October 17, 2000]\ C. The Company shall conduct a Department Approved stack test once every 5 years. Reference: Permit: APC-95/0471 (A 2)] D. If the Company decides to install a CEMS, the CEMS shall comply with Quality Assurance procedures in 40 CFR Part 60 Appendix "F". v. Recordkeeping: In addition to the records required by §63.567, the Company shall maintain the following records in accordance with Condition 3(b):	

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Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
not be conducted unless the vapor control	A. Fuel usage in the VCUs on a rolling 12	
system is working properly.	month basis.	
I. The Company shall comply with the	B. Stack test results.	
operation and maintenance requirements for	C. Continuous records of pilot flame	
air pollution control equipment in	monitoring.	
accordance with the provisions of 40 CFR	D. Records of all periods of operation	
63.562(e).	during which the pilot flame is absent	
	during the loading cycle.	
	E. The hourly throughput, type of product,	
	number of piers used and duration of	
	each loading cycle.	
	F. Any flare system that is designed to	
	cease operation upon loss of pilot and	
	that automatically shuts down vessel	
	loading and isolates the vessel vent	
	stream from the flare by closing	
	automatic block valves shall be exempt	
	from the requirements of (C) and (D) above.	
	G. For each marine vessel the Company	
	shall maintain up-to-date	
	documentation of the vapor tightness	
	test results to include as a minimum	
	the following:	
	1. Marine tank vessel owner(s)	
	name(s) and address(s).	
	2. Marine tank vessel identification	
	number.	
	3. Date and location of test.	
	4. Test results.	
	5. Name and signature of tester.	
	6. Witnessing inspector: name,	
	signature and affiliation.	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping H. The written operation and maintenance plan required by 63.562(e).	Reporting/Compliance Certification
6. Visible Emissions: i. Emission standard: The MVR VCUs shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hour period. [Reference: Regulation No. 14, Section 2.1, dated 7/17/84, 40 CFR 60, Subpart A, \$60.18(c)(1), dated 7/1/00 and 40 CFR 63, Subpart A \$63.11(a)(4) dated 7/1/00]	 ii. Compliance Method: A. Compliance with the emission standard shall be based on Monitoring/Testing requirements. [Reference: Regulation No. 30, Section 6(a)(3)(i)(B), dated 12/11/00 and 40 CFR 60, Subpart A, §60.11(d), dated 7/1/00] iiii. Monitoring/Testing: A. Visible emissions from the MVR VCUs shall be monitored as follows: Each day the MVR VCUs are operated, the Company shall conduct a qualitative observation of the flare using Method 22 to evaluate the presence or absence of smoke and/or visible air contaminants while the flare is in operation. [Reference: Regulation No. 30, Section 6(a)(3)(i)(B), dated 12/11/00] B. If visible emissions are detected during the daily qualitative survey of visible emissions or is observed at any other time, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (C) below. If no visible emissions are observed, no further action is required. C. If required under paragraph B above, the Company shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteensecond intervals for a period of not less than one hour except that the observations 	v. Reporting: None in addition to those required by Condition 3(c)(2) of this permit. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 2/11/00]. vi. Certification None in addition to that required by Condition 3(c)(3) of this permit

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	may be discontinued whenever a violation of the standard is recorded or if operations at the MVR VCU are ceased. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. [Reference Reg. No. 20, Section 1.5(c) dated 12/7/88]. iv. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): A. Daily visible emission record each day the MVR VCUs are operated. B. Method 9 observations.	
c. Emission Units No. 21: Crude Unit; Crude Unit Atmospheric Tower Heater 21-H-701, and Crude Unit Vacuum tower Heater 21-H-2. Emission Point 21-1		
I. General Conditions: i. Operational Limitation: A. The throughput to the crude unit shall not exceed 191,100 BPD on a twelve month rolling average basis. [Reference: APC-81/0828 (A1)]	ii. Compliance Method: Compliance with the operational limitations shall be based on monitoring/testing and recordkeeping requirements. [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00]	v. Reporting: None, in addition to those required by Condition 3(c)(2) of this permit. [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00]
B. The heat input to Unit 21-H-701 shall not exceed 490 mmBtu/hr on a twelve month rolling average basis and 530 mmBtu/hr on a twenty-four hour rolling average	 iii. Monitoring/Testing: [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00] A. The Company shall continuously monitor the following: 	vi. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
basis. [Reference: Permit: APC-95/0570 (A 2)] C. The heat input to 21-H-2 shall not exceed 249 mmBtu/hour on a 365 day rolling average basis. [Reference: Permit: APC-81/0784]	 Daily fresh feed throughput to the Crude unit and determine the rolling 12 month average in barrels per calendar day. Fuel usage by 21-H-701 and 21-H-2 	
D. The emission standards in conditions (c) (2) through (c)(6) below shall not apply for a period of twenty-four (24) hours from the time that fuel gas flow is started to the heater and for a period of twenty-four (24) hours from the time that black oil charge to the crude unit is stopped. [Reference: Permit: APC-95/0570 (A 2)]	Data capture representing 90% of the Process Heaters' daily operating hours shall be considered continuous monitoring of fuel usage. B. The Company shall obtain a daily sample of the fuel gas combusted in 21-H-701 and 21-H-2 and analyze it to determine the HHV of the fuel gas. iv. Recordkeeping: [Reference: Regulation 30, Section 6(a)(3)(ii) dated 12/11/00] The Company shall maintain the following records: A. Rolling 12 month average throughout of fresh feed to the crude unit in MBPD.	
	B. The rolling 24 hour and rolling 12 month heat input calculated from the hourly fuel gas flow and the HHV obtained from daily sampling.	
 2. Particulate Matter: i. Emission Standard: A. For 21-H-701 and 21-H-2: The Company shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. [Reference: Regulation No. 4 Section 2.1 dated 2/1/81] B. For 21-H-701: PM₁₀ emissions shall not 	 iii. Compliance Method: A. Compliance with the emission standards A and B shall be based on the stack test based emission factor and the rolling 12 month fuel usage [Reference: APC-95/0570 (A2)] B. Compliance with operational limitations A and B shall be based on recordkeeping. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] 	vi. Reporting: None, in addition to those required by Condition 3(c)(2) of this permit [Reference:Permit:APC-95/0570 (A2)] vii. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
exceed 0.02 lb/mmBtu and 42.9 tons in any rolling twelve month period (inclusive of H2SO4 emissions). [Reference: Permit: APC-95/0570 (A2)] ii. Operational Limitation: A. With the exception of operational Limit B process heaters 21-H-701 and 21-H-2 shall only combust natural gas or desulfurized RFG. [Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00] B. 21-H-701 may combust process vent gas from the Merox system oxidizer column 21-C-104. [Reference Civil Action H-01-0978 (S.D. Tex.) Entered on March 21, 2001 and Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00]	 iv. Monitoring/Testing: [Reference: APC-95/0570 (A2)] and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The Company shall monitor fuel usage continuously. Data capture representing 90% of the Process Heaters' daily operating hours shall be considered continuous monitoring of fuel usage. B. The Company shall continuously monitor the H₂S content in the RFG. C. The H₂S content of the Merox vent stream shall be monitored according to the approved Alternate Monitoring Program (AMP). [Reference: Approval of NSPS Subpart H Alternate Monitoring Plans dated October 21, 2002] D. The Company shall conduct a stack test every five years to determine the emission factor in terms of lb/mmBtu in accordance with Methods 5B/202, or any other testing methodology approved by the Department. 	
	v. Recordkeeping: The Company shall maintain the following records: [Reference:Permit:APC-95/0570 (A2) and Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00] A. Rolling 12 month heat input calculated from the hourly fuel gas flow and the HHV obtained from daily sampling. B. H ₂ S in RFG as recorded by CMS C. Monitoring data required by the AMP. D. Periods of operation when Merox vent gas from 21-C-104 is combusted in 21-H-701. E. Stack test results.	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
 3. Sulfur dioxide (SO₂): Emission Standards: A. Except as allowed by Operational Limitation 2.ii.A. above, the Company shall not burn in any fuel gas combustion device any fuel gas that contains H₂S in excess of 0.1 grain/DSCF on a three hour rolling average. [Reference Regulation No. 20, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/17/2000] B. SO₂ emissions from 21-H-701 shall not exceed 48.1 tons in any rolling twelve month period. [Reference: Permit: APC-95/0570 (A 2)] 	 ii. Compliance Method: [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with Emission Standard A shall be based on the H₂S CEMS for the RFG and on the monitoring requirements required by the AMP. B. Compliance with Emission Standard B shall be based on the rolling twelve month fuel usage and the rolling twelve month average sulfur content of the fuel as determined using H₂S CMS. iii. Monitoring/Testing: [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The H₂S content in RFG shall be continuously monitored using CMS. B. The H₂S CMS shall comply with Performance Specification 7 of 40 CFR 60, Appendix "B". C. Quality Assurance requirements for the H₂S CMS shall be in accordance with the procedures described in 40 CFR 60, Appendix "F". iv. Recordkeeping: [Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00]. The Company shall maintain the following records: A. Fuel usage, rolling average 12 month sulfur content as measured by H₂S CEMS and all H₂S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits. 	 v. Reporting None in addition to those listed in Condition 3(c)(2) of this permit. vi. Certification Requirement: None in addition to those listed in Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
4. Nitrogen oxides (NO _x): i. Emission Standard: A. For 21-H-701: NO _x emissions shall not exceed 0.043 lb/mmBtu on a 3 hour rolling average and 92.3 tons in any rolling twelve month period. [Reference: Permit: APC-95/0570 (A 2)] B. For 21-H-2: NO _x emissions shall not Exceed 0.20 lb/mmBtu on a 24 hour rolling average. [Reference: Permit: APC-81/0784 and Regulation No. 12 Section 3.2(a) dated 11/24/93] C. For 21-H-701: During the ozone season (May 1, 2008 through September 30, 2008, the Company shall hold in its compliance account and/or its overdraft account, as of the NO _x allowance transfer deadline of each control period, a quantity of NO _x allowances available for deduction that is equal to or greater than the total NO _x emissions from 21-H-701 for that control period. [Reference: Permit: AOM-003/00016-1 dated May 1, 2002 and Regulation No. 39 Section 2.a. dated 12/11/00]	ii. Compliance Method: Compliance with the emission standards shall be determined by CEMS. The Company shall operate and maintain the CEMS to assure maximum data capture and at no time shall the data capture fall below eighty-five percent (85%) of the Process Heaters daily operating hours and eighty-five percent (85%) of the operating days per month. [Reference: Permit: APC-95/0570 (A2)] iii. Monitoring/Testing: The CEMS for NO _x and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 75, Appendix "A". Quality Assurance procedures for the NO _x and diluent analyzers shall be demonstrated in accordance with 40 CFR, Part 75, Appendix "B". [Reference: Permit: APC-95/0570 (A2) and Regulation No. 39 Section 8 dated 12/11/00] iv. Recordkeeping: The Company shall maintain the following records: [Reference: Permit: APC-95/0570 (A 2) Permit: AOM-003/0016-1 dated May 1, 2002 and Regulation No. 39 Sections 7, 8 and 11 dated 12/11/00 and Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00] A. All periods of exceedances of the emission standards. B. Unless otherwise provided, the owners and Operators of the NOx Budget source and each NOx Budget unit at the source shall keep on site at the source each of the	v. Reporting: [Reference: Permit APC-95/0570 (A2), Permit APC-81/0784, Permit: AOM-003/00016-1 dated May 1, 2002 and Regulation No. 39 Section 7, 8 and 11 dated 12/11/00] In addition to those required by Condition 3(c)(2) of this permit the Company shall submit the following reports: A. Quarterly reports for the preceding quarter shall be submitted to the Department by January 31, April 30, July 31 and October 31 of each calendar year with the following information: 1. For 21-H-2, A summary of all NOx excess emissions for the quarter including the name and location of the facility; the permitted source(s) that caused the excess emissions; the time and date and the first observance of the excess emissions; the cause, estimated rate, and corrective actions to prevent re-occurrence. 2 For 21-H-701 a CEMS report in a form approved by the Department; B. NOx authorized account representative of a NOx Budget unit at the source shall submit the reports and compliance certifications required under the NOx Budget Trading Program, including those under Regulation No. 39 § 7, 8, and 11. vi. Certification: [Reference: Permit: AQM-003/00016-1 dated May 1, 2002, and Regulation No. 39

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Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	r. g. r. r
	following documents for a period of 5 years	Sections 6.d. dated 12/11/00] In addition to those
	from the date the document is created. This	listed in Condition 3(c)(3) of this permit, each
	period may be extended for cause, at any	document submitted to the Department and the
	time prior to the end of 5 years, in writing	Administrator pursuant to this NOx Budget
	by the permitting authority or the	permit shall be signed and certified by the
	Administrator.	Authorized Account Representative and shall
	1. The account certificate of	contain the following language:
	representation under Regulation No. 39	
	§ 6 and all documents that demonstrate	"I am authorized to make this submission on behalf
	the truth of the statements in the	of the owners and operators of the NOx Budget
	account certificate of representation;	sources or NOx Budget units for which the
	provided that the certificate and	submission is made. I certify under penalty of law
	documents shall be retained on site at	that I have personally examined, and am familiar
	the source beyond such 5 year period	with, the statements and information submitted in
	until such documents are superseded because of the submission of a new	this document and all its attachments. Based on my inquiry of those individuals with primary
	account certificate of representation	responsibility for obtaining the information, I
	under Regulation No. 39 § 6 changing	certify that the statements and information are to
	the NOx authorized account	the best of my knowledge and belief true, accurate
	representative.	and complete. I am aware that there are significant
	2. All emissions monitoring information,	penalties for submitting false statements and
	in accordance with Regulation No. 39	information or omitting required statements and
	§ 8; provided that to the extent that	information, including the possibility of fine or
	Regulation No. 39 § 5 provides for a 3	imprisonment."
	year period for record keeping, the 3	
	year period shall apply.	
	3. Copies of all reports, compliance	
	Certifications, and other submissions	
	and all records made or required under	
	the NOx Budget Trading Program.	
	4. Copies of all documents used to	
	complete a NOx Budget permit	
	application and any other submission	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
5. Carbon Monoxide (CO): i. Emission Standard: A. CO emissions from 21-H-701 shall not exceed 0.035 lb/mmBtu and 75.1 tons in any rolling 12 month period. [Reference: Permit: APC-95/0570 (A2) and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]	under the NOx Budget Trading Program or to demonstrate compliance with the requirements of the NOx Budget Trading Program. 5. Records demonstrating that any unit exempted under Regulation No. 39 § 3(b) of this regulation is retired. The owner(s) or operator(s) of that unit bears the burden of proof that the unit is retired. D. The rolling 12 month total emissions for NOx shall be calculated and recorded each month. E. CEMS data, calibration and audit results. F. Factor adjustments, and the actual daily data capture. ii. Compliance Method: Compliance with the emission standard shall be based on the stack test based emission factor and the rolling twelve month fuel usage. [Reference: Permit: APC-95/0570 (A2)] iii. Monitoring/Testing: [Reference: Permit: APC- 95/0570 (A2) and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The Company shall monitor fuel usage continuously. B. The Company shall conduct stack Tests at 5 year intervals to determine the emission factor in terms of lb/mmBtu. iv. Recordkeeping: The Company shall maintain the following records: [Reference: Permit: APC-95/0570 (A2) and	 v. Reporting: None in addition to those required by Condition 3(c)(2) of this permit. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]. vi. Certification: None in addition to those required by Condition 3(c)(3) of this permit.

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
6. Volatile Organic Compounds (VOCs): i. Emission Standard: A. VOC emissions from 21-H-701 shall not exceed 0.003 lb/mmBtu and 6.4 tons in any rolling twelve month period. [Reference: Permit: APC-95/0570 (A2)] B. The leak detection and repair requirements to control fugitive VOC emissions from the Crude Unit shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR part 63, subpart CC for new components	`	v. Reporting: None in addition to those required by Condition 3(c)(2) of this permit. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]. vi. Certification: None in addition to those required by Condition 3(c)(3) of this permit.
in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the Crude Unit shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. [Reference: Permit: APC-95/0570 (A2)] ii. Operational Limitation: A. There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system. B. The Company shall provide for the following during process unit turnarounds. 1. Depressurization venting of the	shall be based on the standards in 40 CFR 63.648. C. Compliance with the Operational Limitation B shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. During process unit turnarounds, the Company shall conduct depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. iii. Monitoring/Testing: [Reference: Permit: APC-95/0570 (A2) and Regulation No. 30 Section 6(a)(3)(i)(B)	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
process unit or vessel to a vapor recovery system, flare or firebox 2. No emission of VOC from a Process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.	 dated 12/11/00] A. The Company shall monitor fuel usage continuously. B. The Company shall conduct a stack test every 5 years to determine the emission factor in terms of lb/mmBtu. iv. Recordkeeping: The Company shall maintain the following records: [Reference: Permit: APC-95/0570 (A2) and Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00] A. Rolling twelve month fuel usage. B. Stack test results. C. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. D. Date of process unit or vessel turnarounds and the internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. 	
7. Visible Emissions: The Company shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84].	 ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. [Reg. No. 30 Section 6(a)(3) dated 12/11/00]. iii. Monitoring/Testing: A. The Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1. If visible emissions are observed, the 	 v. Reporting Requirement: None in addition to those required by Condition 3(c)(2) of this permit. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]. vi. Certification Requirement: None in addition Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
Operational Limitation(s)/Standard(s)	applicable) and Record Keeping	Reporting/Comphance Certification
	Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph B below. 2. If no visible emissions are observed, no further action is required. B. If required under paragraph A above, the Company shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteensecond intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. [Reference Reg. No. 20, Section 1.5(c) dated 12/7/88]. iv. Recordkeeping [Reference A. Observation records shall be maintained and made available to the Department upon request.	
da. Emission Units No. 22: Fluid Coking Unit (FCU): FCU, Wet Gas Scrubber (WGS), and		
Selective Non-Catalytic Reduction System		
(SNCR) (Emission point/s 22-2 or 22-3), FCU		
Start Up Heater 22-H-1 (Emission point/s 22-2		
or 22-3), FCU Selas Steam Superheater 22-H-2		
(Emission point 22-4), FCU Carbon Monoxide		

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Boiler 22-H-3 (Emission point 22-2) and FCU Back Up Incinerator 22-H-4 (Emission point 22-3); 1. Throughput and General Conditions: i. Operational Limitations [Reference Permit: APC-	ii. Compliance Method: A. Compliance with operational limitations A,	v. Reporting: In addition to those required by Condition
A. The FCU throughput shall not exceed a maximum rate of 57,199 barrels per day of total feed, exclusive of the FCU recycle stream, as a 12 month rolling average, except as provided in this Condition. In the event that the Company determines that the FCU throughput may exceed 57,199 barrels per day of fresh feed, as a 12 month rolling average, without any "modification" to the FCU, as such term is defined in Delaware Air Quality Regulation No. 1, then the Company shall submit a notification to the Department in advance of achieving a throughput in excess of the level identified in this Condition. The notification shall include a demonstration that the proposed throughput value would be achieved without any modification to the FCU. If the Department approves such demonstration, the Company may operate the FCU at the throughput value addressed in the notification made under this Condition.	B and C shall be based on monitoring/testing and recordkeeping requirements. [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00] B. Compliance with operational limitations D, E and F shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. iii. Monitoring/Testing: [Reference: Regulations 30, Section 6(a)(3)(i)(B), dated 12/11/00] A. The Company shall continuously monitor and record the concentration (dry basis) of H ₂ S in RFG before it is combusted in any fuel burning device. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H ₂ S in RFG prior to its being combusted in any fuel burning device. The H ₂ S CEMS shall conform to the requirements of Performance	3(c)(2) of this permit,, the Company shall submit the following reports: [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00 and Permit: Permit: APC-81/0829 (A6)] A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Company. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The required reports shall contain the following information: 1. A summary of all excess emissions for the reporting period. 2. Periods when the firebox temperature fell below 1300°F. 3. Exceedances of the FCU throughput rate identified in operational limitation A. 4. A summary of all periods when the FCU WGS has been bypassed
B. The Company shall not burn any fuel	Specification 7 of 40 CFR 60, Appendix	<u>5.</u> Hourly SO ₂ emissions during periods

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
gas in any fuel gas combustion device that contains hydrogen sulfide (H ₂ S) in excess of 0.10 gr/dscf (162 ppm). C. Except as provided in operational limitation E, the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating. D. During planned start ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU. In the event of a planned shut down of the FCU, the FCU COB or the WGS, the Company shall continue to operate the FCU COB and WGS until there is no feed entering the reaction section of the FCU prior to commencing shut down of the FCU COB and/or the WGS. E. In the event of any unplanned shutdown and bypass of the Belco prescrubber and the WGS, the Company shall implement the operating procedures and turndown matrix in accordance with Attachment "A" of this permit. Implementation of these procedures ensure that the Company shall take steps to immediately respond to safely reduce the FCU throughput to a level that does not cause a violation of any ambient air quality standard. In accordance with	"B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F" The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] B. The Company shall monitor the FCU throughput and the calculated coke burn rates. [Reference Permit: APC-81/0829 (A6)] iv. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): [Reference: Regulation 30, Section 6(a)(3)(ii), dated 12/11/00] A. CEMS data, calibration and audit results and stack test results. B. The daily COB fuel usage C. The coke burn rate and FCU throughput, both on a rolling twelve month average basis. D. Date of every process unit or vessel turnaround. E. Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. F. Backup incinerator operating hours, furnace temperature, percent O2, and opacity.	when the FCU WGS was bypassed 6. The duration of all periods of excess opacity 7. Back up incinerator operating data required pursuant to recordkeeping condition F. B. Quarterly CEMS reports for the preceding quarter shall be submitted to the Department for the CEMS required by this permit by January 31, April 30, July 31 and October 31 of each calendar year and shall include a report of excess emissions, quarterly audit results, data capture for the period and details of out of control periods. vi. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Attachment "A" of this permit, the Company shall satisfy the reduced throughput level described by the turndown matrix during the entire duration of the bypassed operation. In the event that the Company makes any material changes to its operating procedures and turndown matrix, it shall submit the revised procedures and turndown matrix to the Department for approval. F At all times, including periods of startup, shutdown, and malfunction, the Company shall maintain and operate the equipment and processes covered by this Permit, including all structural and mechanical components of all equipment and processes and all associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.		
Particulate Matter: i. Emission Standard: A. For 22-H-1 and 22-H-2: The Company shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. [Reference: Regulation 4 Section 2.1 dated 2/1/81] B. For 22-H-3: The Company shall not cause or allow the emission of	 iii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with the emission standard A, is based on compliance with the NSPS limit of 0.1 grain/dscf limit of H₂S in RFG. B. Compliance with the emission standard B. is based on monitoring/testing and recordkeeping requirements. C. Compliance with emission standard D is based upon monitoring/testing and 	 vi. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.da.1.v. vii. Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
particulate matter in excess of those specified in Table 4 of Regulation 5 [Reference: Regulation No. 5 Section 5.2 dated 2/1/81] D. For the FCU WGS: 1. TSP emissions shall not exceed 47.1 lb/hour and 206.3 TPY, and 2. PM ₁₀ emissions (including TSP and H ₂ SO ₄) shall not exceed 133.1 lb/hour and 582.9 TPY. [Reference Permit: APC-81/0829 (A6)] ii. Operational Limitation: With the exception process off gas in units 22-H-3 and 22-H-4 only desulfurized RFG may be combusted in units 22-H-1, 22-H-2, 22-H-3 and 22-H-4. [Reference: Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00]	recordkeeping requirements. D. Compliance with the operational limitation shall be demonstrated by record keeping. iv. Monitoring/Testing: [Reference: Permit: APC-81/0829 (A6) and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The Company shall conduct annual performance testing of the WGS, unless the Department approves less frequent testing, as follows: 1. For H ₂ SO ₄ : testing shall be in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. 2. For TSP, testing in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. 3. For PM ₁₀ (including TSP and H ₂ SO ₄), testing shall be in accordance with Methods 5B/202, or other testing methodology approved by the Department. v. Recordkeeping: [Reference: Regulation 30, Section 6(a)(3)(ii) dated 12/11/00] The Company shall maintain the following records of all performance tests in accordance with Condition 3(b):	
3. Sulfur dioxide (SO ₂):	ii. Compliance Method: [Reference Regulation No. 30	v. Reporting Requirement:

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
i. Emission Standards: A. SO ₂ emissions shall not exceed 25 ppmvd @ 0% O ₂ on a rolling 365 day average, 50 ppmvd @ 0% O ₂ on a rolling 7 day average, and 174 TPY. [Reference Permit: APC-81/0829 (A6)]	Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with Emission Standard A shall be based on CEMS. iii. Monitoring/Testing: [Reference Permit: APC-81/0829 (A6) and Regulation No. 30 Section 6(a)(3)(i)(B) dated12/11/00] A. The SO ₂ CEMS shall comply with Performance Specification 2 of 40 CFR 60, Appendix "B". B. Quality Assurance requirements for the SO ₂ CEMS shall be in accordance with the procedures described in 40 CFR 60, Appendix "F". iv. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): A. Rolling twelve month SO ₂ emissions as measured by the SO ₂ CEMS. [Reference Permit: APC-81/0829 (A6)] B. CEMS data, calibration and audit results and stack test results. [Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00].	Comply with "General Conditions" in Condition 3, Table 1.da.1.v vi. Certification Requirement: None in addition to Condition 3(c)(3).
 4. Nitrogen Oxides (NO_x): Emission Standard: A. For Unit 22-H-2: NO_x emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. [Reference: Regulation 12, Section 3.3(b) dated 11/24/93] B. For unit 22-H-3: during the ozone season in 2008 (May 1 through September 30), the Company shall 	 ii. Compliance Method: A. Compliance with Emission Standard A. shall be by conducting an annual tune up of each unit by qualified personnel. [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] B. Compliance with the Emission Standard B shall be based on CEMS. C. Compliance with the Emission Standard C shall be based on monitoring/testing and 	v. Reporting: A. Comply with "General Conditions" in Condition 3, Table 1.da.1.v B. NO _x authorized account representative of a NO _x Budget source and each NO _x Budget unit at the source shall submit the reports and compliance certifications required under the NO _x Budget Trading Program, including those under Regulation No. 39 § 7, 8,

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
hold in its compliance account and/or its overdraft account, as of the NO _x allowance transfer deadline of each control period a quantity of NO _x allowances available for deduction that is equal to or greater than the total NO _x emissions from 21-H-3 for that control period. [Reference: Permit: AOM-003/00016/1 dated May 1, 2002 and Regulation No. 39 Section 2.a. dated 12/11/00] C. NO _x emissions from the FCU WGS shall not exceed 152 ppmvd @ 0 % oxygen on a 24 hour rolling average basis and 689.8 TPY. The Company shall propose annual concentration based (365 day average) and mass emission (TPY) limits by July 27, 2008 based on approximately 6 months of rolling 365-day data spanning the period November 27, 2007 through May 27, 2008 for AQM's review, approval and incorporation into this permit. [Reference Permit: APC-81/0829 (A6)]	recordkeeping requirements. iii. Monitoring/Testing: A. For Unit 22-H-2: None in addition to the annual tune up required in Compliance Method A. B. Quality Assurance procedures for the NO _x CEMS and O ₂ analyzer shall be established in accordance with the procedures in Appendix "B" of 40 CFR, Part 75. [Reference Permit: APC-81/0829 (A6)]. iv. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): A. A log of all tune ups performed and documentation of qualifications of personnel responsible for conducting the tune up. B. Unless otherwise provided, the owners and operators of the NO _x Budget source and each NO _x Budget unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the permitting authority or the Administrator. 1 The account certificate of representation under Regulation No. 39	vi. Certification: [Reference:Permit:AQM-003/00016/1 dated May 1, 2002 and Regulation No. 39 Sections 6.d. dated 12/11/00] In addition to those listed in condition 3(c)(3) of this permit, each document submitted to the Department and the Administrator pursuant to the NOx Budget permit for 22-H-3 shall be signed and certified by the Authorized Account Representative and shall contain the following language: "I am authorized to make this submitted on behalf of the owners and operators of the NOx Budget sources or NOx Budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

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	account certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new account certificate of representation	
	under Regulation No. 39 § 6 changing the NO _x authorized account representative. 2 All emissions monitoring information, in accordance with Regulation No. 39	
	§ 8; provided that to the extent that Regulation No. 39 § 5 provides for a 3 year period for record keeping, the 3 year period shall apply. 3 Copies of all reports, compliance	
	certifications, and other submissions and all records made or required under the NO _x Budget Trading Program. 4 Copies of all documents used to	
	complete a NO _x Budget permit application and any other submission under the NO _x Budget Trading Program or to demonstrate compliance with the requirements of the NO _x Budget Trading Program.	
	 Records demonstrating that any unit exempted under Regulation No. 39 § 3(b) of this regulation is retired. The owner(s) or operator(s) of that unit bears the burden of proof that the unit is retired. 	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	C. The rolling 12 month total emissions for NOx shall be calculated and recorded each month in an easily accessible format.D. CEMS data, calibration and audit results.	
5. Carbon Monoxide (CO): i. Emission Standard [Reference Permit: APC-81/0829 (A6)]: A. CO emissions from the FCU WGS shall not exceed 500 ppm dry @ 0% O2 on an hourly average, 200 ppm dry @ 0% O2 on a rolling 365 day average, and 608 TPY. B. The Company shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCU COB.	 ii. Compliance Method [Reference Permit: APC-81/0829 (A6)]: A. Compliance with emission standard A shall be based on CEMS. B. Compliance with emission standard B is defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis. iii. Monitoring/Testing: A. The Company shall monitor the firebox temperature of 22-H-3, and 22-H-4 continuously. [Reference regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] B. The QA/QC procedures for the CO CEMS and O2 analyzer shall be in accordance with the procedures in Appendix "F" of 40 CFR part 60. iv. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): A. COB firebox temperature. B. The rolling 12 month total emissions for CO shall be calculated and recorded each month in an easily accessible format. C. CEMS data, calibration and audit results and stack test results. [Reference Permit: APC-81/0829 (A6)] 	 v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.da.1.v vi. Certification Requirement: None in addition to condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
 6. Volatile Organic Compounds (VOCs): i. Emission Standard [Reference Permit: APC-81/0829 (A6)]: A. VOC emissions from the FCU WGS shall not exceed 0.14 lb/mmDSCF of stack gas and 7.3 TPY. B. The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. ii. Operational Limitations [Reference Permit: APC-81/0829 (A6)] A. There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system. B. During process unit turnarounds the Company shall provide for the following 1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox; and 2. No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per 	ii. Compliance Method [Reference Permit: APC-81/0829 (A6)]: A. Compliance with Emission Standard A shall be based on monitoring/testing and recordkeeping requirements B. Compliance with emission standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177. Compliance with the standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. C. Compliance with operational limitation A shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. D. Compliance with operational limitation B, i.e., during process unit turnarounds, shall be based upon the Company conducting depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. iii. Monitoring/Testing: A. The Company shall conduct performance testing every three years, unless the Department	v. Reporting Requirement: A. Comply with "General Conditions" in Condition 3, Table 1.da.1.v. B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. [Reference Permit: APC-81/0829 (A6)] vi. Certification Requirement: None in addition to condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
square inch atmospheric [psia]) or less.	approves less frequent testing. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60, and shall determine and report results as total hydrocarbons. [Reference Permit: APC-81/0829 (A6)] iv. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): A. Records of all performance tests. B. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654	
7. Sulfuric Acid (H2SO4): i. Emission Standard: [Reference Permit: APC-	for new components in light liquid and gaseous service. [Reference Permit: APC-81/0829 (A6)] ii. Compliance Method: [Reference Permit: APC-81/0829 (A6)]	v. Reporting Requirement: Comply with "General Conditions" in
81/0829 (A6)] A. H ₂ SO ₄ emissions from the FCU shall meet one of the following standards:	Compliance with the Emission Standard B shall be based on monitoring/testing and recordkeeping requirements.	Condition 3, Table 1.da.1.v
1. H ₂ SO ₄ emissions shall be reduced by at least 40% across the wet gas scrubber system; or 2. The outlet concentration of H ₂ SO ₄ /SO ₃ from the stack shall be no greater than 10 ppmvd B. H ₂ SO ₄ emissions from the FCU WGS shall not exceed 58 lb/hr and 252.3 TPY.	iii. Monitoring/Testing: [Reference Permit: APC-81/0829 (A6)] The Company shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department.	vi. Certification Requirement: None in addition to condition 3(c)(3).
	iv. Recordkeeping: The Company shall maintain records of all	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	performance tests in accordance with Condition 3(b):	
8. Ammonia (NH3): [Reference Permit: APC-81/0829 (A6)] i. Emission Standard: Ammonia emissions from the FCU shall not exceed 2 lb/hour and 8.8 TPY	 ii. Compliance Method: [Reference Permit: APC-81/0829 (A6)] Compliance with the Emission Standard shall be based on an initial performance test. iii. Monitoring/Testing: [Reference Permit: APC-81/0829 (A6)] The initial performance test shall be conducted in accordance with EPA Conditional Test Method 27. iv. Recordkeeping: The Company shall maintain records of the initial performance test in accordance with Condition 3(b): 	 v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.da.1.v vi. Certification Requirement: None in addition to condition 3(c)(3).
9. Lead (Pb): [Reference Permit: APC-81/0829 (A6)] i. Emission Standard: Pb emissions shall from the FCU not exceed 4.37 E-04 pounds per thousand pounds of coke burned and 9.0 E-02 TPY;	 ii. Compliance Method: [Reference Permit: APC-81/0829 (A6)] Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. iii. Monitoring/Testing: [Reference Permit: APC-81/0829 (A6)] The Company shall conduct performance testing every three years, unless the Department approves less frequent testing iv. Recordkeeping: The Company shall maintain records of all performance tests in accordance with Condition 	 v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.da.1.v vi. Certification Requirement: None in addition to condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	3(b).	
Hazardous Air Pollutants (HAPs): [Reference Permit: APC-81/0829 (A6)] Emission Standard: Nickel (Ni) emissions shall not exceed	ii. Compliance Method: [Reference Permit: APC-81/0829 (A6)] Compliance with the Emission Standard shall be based on the stack test based emission factor	v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.da.1.v
0.001 pounds per 1,000 pounds of coke burned.	in terms of lb/Mlb coke burn rate	vi. Certification Requirement: None in addition
	iii. Monitoring/Testing: [Reference Permit: APC-81/0829 (A6)] The Company shall conduct performance testing every three years, unless the Department approves less frequent testing	to condition 3(c)(3).
	iv. Recordkeeping: The Company shall maintain records of all performance tests in accordance with Condition 3(b).	
Visible Emissions: i. Emission Standards: The Company shall not cause or allow the emission of visible air contaminants and/or	ii. Compliance Method: A. For units 22-H-2 and 22-H-4 compliance shall be demonstrated by monitoring and testing requirements, and record keeping.	v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.da.1.v
smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four	[Reg. No. 30 Section 6(a)(3) dated 12/11/00]. B. For units 22-H-1 and 22-H-3 compliance shall be demonstrated by the AMP.	vi. Certification Requirement: None in addition to Condition 3(c)(3).
(24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84 and Permit: APC-81/0829 (A6)].	 iii. Monitoring/Testing: A. For unit 22-H-2, visual observations in accordance with paragraph C below shall be conducted within one (1) week of the annual tune-up. [Reference Reg. No. 30 Section 6(a)(3) dated 12/11/00]. B. For Units 22-H-2 and, when operating, 22- 	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology (Manifering Treating OA/OC Proceedings (or	Departing/Compliance Contification
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
	H-4, the Company shall conduct daily	
	qualitative stack observations to determine	
	the presence of any visible emissions when	
	the unit is in operation.	
	<u>1.</u> If visible emissions are observed, the	
	Company shall take corrective actions	
	and/or conduct a visible observation in	
	accordance with Paragraph C below.	
	<u>2.</u> If no visible emissions are observed,	
	no further action is required.	
	C. If required under paragraphs A or B above,	
	the Company shall, in accordance with	
	Subsection 1.5(c) of Regulation No. 20,	
	conduct visual observations at fifteen-	
	second intervals for a period of not less	
	than one hour except that the observations	
	may be discontinued whenever a violation	
	of the standard is recorded. The additional	
	procedures, qualification and testing to be	
	used for visually determining the opacity	
	shall be those specified in Section 2 & 3	
	(except for Section 2.5 and the second	
	sentence of Section 2.4) of Reference	
	Method 9 set forth in Appendix A, 40 CFR,	
	Part 60, revised July 1, 1982. [Reference	
	Reg. No. 20, Section 1.5(c) dated 12/7/88].	
	D. AMP: The company shall continuously	
	monitor the pressure drop across the Agglo-	
	filtering modules and Cyclolab Droplet	
	Separators and the quench/pre-scrubber	
	recirculation pump discharge pressure. The	
	determination that the opacity from the	
	FCU WGS stack, shall be based	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	upon maintaining a minimum delta-P of 6 inches WC and a minimum discharge pressure with a single quench/pre-scrubber recirculation pump of 115 psig both on a minute basis. iv. Recordkeeping: [Reference Reg. No. 30, Section 6(a)(3)(ii) dated 12/11/00]. The Company shall maintain the following records in accordance with Condition 3(b): A. Observation records shall be maintained and made available to the Department upon request.	
db. Emission Units No. 22: Fluid Coke Handling and Storage Facility: Emission Point 22-1		
 Particulate matter (PM) Emission Standard: A. PM emissions shall not exceed 0.2 grain/dscf from the coker silo baghouse exhaust. [Reference Reg. No. 5, Section 2.1, dated 2/1/81 and Permit: APC-82/1209 (A 3)]. B. Coke conveying, grading, wetting, stackout, dozing, truck/railcar loading and reclaim operations shall not result in particulate emissions in excess of 46 TPY of TSP and 32 TPY of PM₁₀ where the term "year" is defined as any twelve consecutive months. [Reference: Permit: APC-82/1209 (A 3)]. 	 iii. Compliance Method: A. Compliance with emission standard A and operational limitations A and B shall be based on monitoring the pressure drop across the baghouse continuously. Proper operation of the Micro-Pulsaire dust collector shall be based on a pressure drop no greater than 12 inches water column and no observable opacity exceedances of the emission standard in condition db.2.i of this permit. [Reference: Reg. No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit: APC-82/1209 (A 3)]. B. Compliance with emission standard B shall be based on calculations using the same methodology and equations used in the 	vi. Reporting: In addition to those required by Condition 3(c)(2)of this permit the Company shall submit quarterly reports of the ambient air quality data obtained from the high volume samplers. [Reference: Permit: APC-82/1209 (A 3)]. vii. Certification: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
ii. Operational Limitation: [Reference: Permit: APC-82/1209 (A 3)]. A. No coke shall be pneumatically conveyed into the coke storage silo, unless the Micro-Pulsaire dust collector is working properly. B. Proper operation and maintenance of gauge which continuously indicates the pressure drop across the baghous shall be considered a necessary part the proper operation of the baghouse C. The moisture content of the coke transported by truck shall be greater than 8% at all times and greater than 10% on an annual average basis.	shall be based on the sampling and monitoring requirements. [Reference: Reg. No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit: APC-82/1209 (A 3)] D. Compliance with operational limitations D, E, F and G shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's	
D. Fugitive emissions shall not be emitted in such quantities as to cause or create a condition of air pollution from material handling operations, the stockpiling of materials or vehicular traffic entering or leaving the facility	procedures, and inspection of the source.	
 E. Oil wetting of the coke shall be employed as a dust control measure before it is loaded onto the conveyor system. 	iv. Sampling/Monitoring/Testing: [Reference: Reg. No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit: APC-82/1209 (A 3)]	
F. All conveyors and drop points shall be fully enclosed at all times when coked is being conveyed or dropped.	reclaim area and from the coke being	
G. The fluxing agent in the gasifiers shat consist solely of uncontaminated natural soil and uncontaminated additives such as limestone. Supplemental approval from the	analyzed for moisture content. B. The Company shall monitor the entire coke storage and handling area with high volume samplers for the life of	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
Operational Limitation(s)/Standard(s)	applicable) and Record Keeping	Reporting/Comphanice Certification
Department shall be required before the use of any waste material as a fluxing agent or additive.	the system. v. Recordkeeping: [Reference: Reg. No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit: APC-82/1209 (A 3]]. The Company shall maintain the following records in accordance with Condition 3(b), unless a longer period is otherwise specified: A. The rolling twelve month emissions of TSP and PM10 B. The rolling twelve month average coke production transferred through the coke handling system. C. The rolling twelve month average amounts of coke transferred to the coke storage area and coke reclaimed. D. The duration of reclaim operations during each rolling twelve month period. F. A maintenance record for the Micro-Pulsaire dust collector and associated monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages. G. A record of the continuous pressure drop readings across the baghouse expressed in inches of H2O. It is acceptable to store this data electronically provided it is in a format acceptable to the Department. H. Records of the ambient air quality data obtained from the high volume samplers for TSP and PM10 for the life of the system.	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. Visible Emissions i. Emission Standards: The Company shall not cause or allow the emission of visible air contaminants and/or smoke from the FCU baghouse, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) months in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1 dated 7/17/84 and Permit: APC-82/1209 (A 3)]	ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and record keeping. [Reg. No. 30 Section 6(a)(3) dated 12/11/00]. iii. Monitoring/Testing: A. The Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1 If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. 2 If no visible emissions are observed, no further action is required. B. If required under paragraph A above, the Company shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteensecond intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. [Reference Reg. No. 20, Section 1.5(c) dated 12/1/88 and Reg. No. 30 Section 6(a)(3) dated 12/11/00].	 v. Reporting Requirement: None in addition to those required by Condition 3(c)(2). vi. Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Record keeping: [Reference Reg. No. 30, Section 6(a)(3)(ii) dated 12/11/00]. The Company shall maintain the following records in accordance with Condition 3(b): A. Observation records shall be maintained and made available to the Department upon request.	
e. Emission Units No. 23: Fluid Catalytic Cracking Unit (FCCU); FCCU Reactor, Catalyst Regenerator, Start up Heaters 23- H-1 A and B, Carbon Monoxide Boiler, 23- H-3, and Wet Gas Scrubber System (WGS) (emission point 23-1);		
 General Conditions: Operational Limitation: [Reference Permit APC-82/0981 (A6-1)] Except as allowed by operational limitation G, the Company shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (162 ppm). Except as provided in Operating Limitation D, the COB, Belco prescrubber, the amine-based Cansolv regenerative WGS, and the caustic polishing scrubber shall be operating properly at all times when the FCCU is operating. 	 ii. Compliance Method: [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00] A. Compliance with operational limitations A and B shall be based on monitoring/testing and recordkeeping requirements. B. Compliance with operational limitations C, D and E shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection 	v. Reporting: In addition to those required by Condition 3(c)(2) of this permit,, the Company shall submit the following reports: [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00] A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Company. An electronic copy of all required reports shall be sent to the Department's compliance
C. During planned start ups of the FCCU, the FCCU COB and WGS	of the source. C. Compliance with the operational	engineer assigned to the Refinery. The required reports shall contain the following

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or **Compliance Determination Methodology** (Monitoring/Testing, QA/QC Procedures (as **Reporting/Compliance Certification** Operational Limitation(s)/Standard(s) applicable) and Record Keeping shall be operating prior to introducing limitations F and G shall be demonstrated information: feed into the riser reactor of the by monitoring/testing and record keeping 1. A summary of all excess emissions for FCCU. In the event of a planned shut the reporting period. requirements. down of the FCCU, the FCCU COB 2. Periods when the FCCU COB firebox or the WGS, the Company shall iii. Monitoring/Testing: temperature fell below 1300°F. A. The Company shall continuously monitor continue to operate the FCCU COB 3. A summary of all periods when the FCCU WGS has been bypassed and WGS until there is no feed and record the concentration (dry basis) of entering the riser reactor of the FCCU H₂S in RFG before it is combusted in any 4. Actual hourly SO₂ emissions during prior to commencing shut down of the fuel burning device. The monitoring periods when the FCCU WGS was FCCU COB and the WGS. instrument shall be located downstream of bypassed 5. The duration of all periods of excess D. In the event of any unplanned all process steps that increase the shutdown and bypass of the Belco concentration of H₂S in RFG prior to its prescrubber or the WGS, the being combusted in any fuel burning B. Ouarterly CEMS reports for the preceding Company shall implement the device. The H₂S CEMS shall conform to quarter shall be submitted to the Department for the CEMS required by this permit by operating procedures and turndown the requirements of Performance matrix in accordance with Attachment Specification 7 of 40 CFR 60, Appendix January 31, April 30, July 31 and October "B" of this permit. Implementation of "B" and comply with the Quality assurance 31 of each calendar year and shall include a these procedures ensure that the requirements of 40 CFR 60, Appendix "F" report of excess emissions, quarterly audit Company shall take steps to The monitoring instrument shall conform to results, data capture for the period and immediately respond to safely reduce the requirements of Performance details of out of control periods. the FCCU throughput to a level that Specification 7 of 40 CFR 60, Appendix C. Annual compliance test reports shall be "B." The relative accuracy evaluation shall does not cause a violation of any submitted to the Department within 90 days ambient air quality standard. In be conducted using Method 11 of 40 CFR of completion of the test. accordance with Attachment B of this 60, Appendix "A." [Reference: Regulation No. 30] Section 6(a)(3)(i)(B) dated 12/11/00] Reference: permit, the Company shall satisfy the vi. Certification: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00] reduced throughput level described by None in addition to those listed in Condition B. H₂S content of the Alky Merox spent air the turndown matrix during the entire 3(c)(3) of this permit. from 24-C-10 and Poly Merox spent air duration of the bypassed operation. In from 26-C-5 shall be monitored according the event that the Company makes to the approved Alternate Monitoring any material changes to its operating Program (AMP). [Reference: Approval of NSPS] procedures and turndown matrix, it Subpart J Alternate Monitoring Plans dated October shall submit the revised procedures 31, 2002] and turndown matrix to the

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Department for approval. E. At all times, including periods of startup, shutdown, and malfunction, the Company shall maintain and operate the equipment and process covered by this section, including all structural and mechanical components of all equipment and processes and all associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. F. With the exception of the operational limitation G, 23-H-1A/B and the FCCU COB (23-H-3) shall only combust desulfurized RFG. [Reference: Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00] G. 23-H-3 may combust Alky Merox spent air from 24-C-10, Poly Merox spent air from 26-C-5 and process off gas from the regenerator. [Reference:40 C.F.R. Part 63, Subpart CC]	 iv. Recordkeeping: [Reference: Regulation 30, Section 6(a)(3)(ii), dated 12/11/00] The Company shall maintain the following records in accordance with Condition 3(b) A. CEMS data, calibration and audit results and stack test results. B. The daily FCCU COB fuel usage. C. Date of every process unit or vessel turnaround. D. Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. E. Bypass stack SO₂ emissions as calculated according to operational limit D measured by approved alternative methodology during atypical operations and FCCU turndown showing FCCU throughput rates. F. Monitoring data required by the AMP. 	
2. Particulate Matter: i. Emission Standard: A. For the FCCU start up heaters (23-H-1A and B) from combustion of fuel gas: The Company shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. [Reference: Regulation No. 4, Section 2.1 dated 2/1/81]	 iii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with the emission standard A. is based on compliance with the NSPS limit of 0.1 grain/dscf limit of H₂S in RFG. B. Compliance with the emission standards B and C is based on monitoring/testing and recordkeeping requirements. iv. Monitoring/Testing: [Reference: Permit: APC- 	 vi. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.e.1.v vii. Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
B. TSP emissions from the FCCU WGS shall not exceed 1lb/1000 lb of coke burned and 203 TPY. [Reference Permit APC-82/0981 (A6-1)]	81/0829 (A 6-1) and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] The Company shall conduct performance testing as follows annually, unless the Department approves less frequent testing: A. H2SO4: in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. B. TSP: in accordance with Reference Method 5B in Appendix "A" of 40 C.F.R. Part 60, or other testing methodology approved by the Department. C. PM10: in accordance with Methods 5B/202, or other testing methodology approved by the Department. V. Record Keeping: [Reference: Regulation 30, Section 6(a)(3)(ii) dated 12/11/00] The Company shall maintain records of all performance tests in accordance with Condition 3(b):	
3. Sulfur dioxide (SO ₂): i. Emission Standards: A. SO ₂ emissions from the FCCU WGS shall not exceed 25 ppmvd @ 0% O ₂ on a rolling 365 day average, 50 ppmvd @ 0% O ₂ on a rolling 7 day average, and 361 TPY. [Reference Permit APC-82/0981 (A6-1)]	 ii. Compliance Method: [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with Emission Standard A shall be based on monitoring/testing and recordkeeping requirements iii. Monitoring/Testing: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The SO₂ emissions shall be continuously monitored by CEMS. B. The SO₂ CEMS shall comply with Performance Specification 2 of 40 CFR 60, 	 v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.e.1.v vi. Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Appendix "B. C. Quality Assurance requirements for the SO ₂ CEMS shall be in accordance with the procedures described in 40 CFR 60, Appendix "F". For the purpose of determining the Relative Accuracy of the CEMS, the applicable standard shall be 25 ppmvd. iv. Recordkeeping: Reference Permit APC-82/0981 (A6-1)] The Company shall maintain the following	
	records: A. Rolling twelve month fuel usage and sulfur content as measured by H ₂ S CEMS B. Rolling twelve month SO ₂ emissions as measured by the SO ₂ CEMS C. CEMS data, calibration and audit results and stack test results.	
4. Nitrogen Oxides (NO _x): i. Emission Standard: A. For Unit 23-H-3: During the ozone season (May 1 through September 30) of 2008 the Company shall hold in its compliance account and/or its overdraft account, as of the NO _x allowance transfer deadline of each control period, a quantity of NO _x allowances available for deduction that is equal to or greater than the total NO _x emissions from 23-H-3 for that control period. [Reference: Permit: AOM-003/00016-1 dated May 1, 2002 and Regulation No. 39 Section 2.a. dated 12/11/00]	 ii. Compliance Method: A. Compliance with emission standards A and B shall be based on monitoring/testing and recordkeeping requirements. [Reference: Permit AQM-003/00016-1 dated May 1, 2002 and Regulation No. 39 Section 2.a. dated 12/11/00] iii. Monitoring/Testing: A. NOx emissions shall be monitored by CEMS. B. Quality Assurance procedures for the NOx and CO2 analyzers shall be demonstrated in accordance with 40 CFR, Part 75, Appendix 	 v. Reporting: [Reference: Permit AQM-003/00016-1 dated May 1, 2002, and Regulation No. 39 Sections 7, 8 and 11 dated 12/11/00] A. Comply with "General Conditions" in Condition 3, Table 1.e.1.v B. NOx authorized account representative of a NOx Budget source and each NOx budget unit at the source shall submit the reports and compliance certifications required under the NOx Budget Trading Program, including those under Regulation No. 39 § 7, 8 and 11. vi. Certification: [Reference: Permit: AQM-003/00016-1 dated May 1, 2002, and Regulation No. 39 Sections 6.d.

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
B. NO _x emissions from the FCCU WGS shall not exceed 118 ppmvd at 0% O ₂ on a 7-day rolling average basis and 719.5 TPY on a 365-day rolling average basis. [Reference Permit APC-82/0981 (A6-1)]	 "B". [Reference: Permit: AQM-003/00016-1] dated May 1, 2002 and Regulation 39 Section 2.a. dated 12/11/00] iv. Recordkeeping: Unless otherwise provided, the owners and operators of the NO_x Budget source and each NO_x Budget unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the permitting authority or the Administrator. A. The account certificate of representation under Regulation No. 39 § 6 and all documents that demonstrate the truth of the statements in the account certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new account certificate of representation under Regulation No. 39 § 6 changing the NO_x authorized account representative. B. All emissions monitoring information, in accordance with Regulation No. 39 § 8; provided that to the extent that Regulation No. 39 § 5provides for a 3 year period for record keeping, the 3 year period shall apply. C. Copies of all reports, compliance certifications, and other submissions and all 	In addition to those listed in Condition 3(c)(3) of this permit, each document submitted to the Department and the Administrator pursuant to the NOx Budget for 23-H-3 shall be signed and certified by the Authorized Account Representative and shall contain the following language: "I am authorized to make this submitted on behalf of the owners and operators of the NOx Budget sources or NOx Budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	records made or required under the NOx Budget trading Program. D. Copies of all documents used to complete a NOx Budget permit application and any other submission under the NOx Budget Trading Program or to demonstrate compliance with the requirements of the NOx Budget trading Program. E. Records demonstrating that any unit exempted under Regulation No. 39 § 3(b) of this regulation is retired. The owner(s) or operator(s) of that unit bears the burden of proof that the unit is retired. F. Rolling twelve month NOx emissions as measured by the NOx CEMS G. CEMS data, calibration and audit results and stack test results.	
 5. Carbon Monoxide (CO): Emission Standard: [Reference Permit APC-82/0981 (A6-1)] A. CO emissions from the FCCU WGS shall not exceed 500 ppm dry @ 0% O₂ on an hourly average, 200 ppm dry @ 0% O₂ on a rolling 365 day average, and 3768 TPY. B. The Company shall not cause or allow the emission of carbon monoxide from the FCCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCCU COB. 	 ii. Compliance Method: [Reference Permit APC-82/0981 (A6-1)] A. Compliance with emission standard A shall be based on monitoring/testing and recordkeeping requirements. B. Compliance with emission standard B is defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis. iii. Monitoring/Testing: [Reference regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-82/0981 (A6-1)] A. The Company shall monitor the firebox temperature of 23-H-3 continuously. 	 v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.e.1.v. vi. Certification Requirement: None in addition to condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	B. CO emissions shall be monitored by CEMS. C. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR part 60. iv. Recordkeeping: [Reference Permit APC-82/0981 (A6-1)] The Company shall maintain the following records in accordance with Condition 3(b): A. The Company shall maintain records of the firebox temperature and all periods when the firebox temperature dropped below 1,300 deg. F. B. The rolling 12 month total emissions for CO as measured by the CO CEMS. C. CEMS data, calibration and audit results and stack test results.	
6. Volatile Organic Compounds (VOCs): i. Emission Standard: [Reference Permit APC-82/0981 (A6-1)] A. VOC emissions from the FCCU WGS shall not exceed 0.40 lb/mmdcsf and 41.4 tons per year. B. The leak detection and repair requirements to control fugitive VOC emissions from the FCCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous	ii. Compliance Method: [Reference Permit APC-82/0981 (A6-1)] A. Compliance with Emission Standard A shall be based on monitoring/testing and recordkeeping requirements B. Compliance with emission standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177. C. Compliance with the standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR	 v. Reporting Requirement: A. Comply with "General Conditions" in Condition 3, Table 1.e.1.v B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. [Reference Permit APC-82/0981 (A6)] vi. Certification Requirement: None in addition to condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
service. The leak detection and repair requirements to control fugitive emissions from the FCCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. ii. Operational Limitations: [Reference Permit APC-82/0981 (A6-1)] A. There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system. B. During process unit turnarounds the Company shall provide for the following 1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox; and 2. No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.	Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. C. Compliance with operational limitation A shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. D. Compliance with operational limitation B, i.e., during process unit turnarounds, shall be based upon the Company conducting depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. iii. Monitoring/Testing: [Reference Permit APC-82/0981 (A6-1)] A. The Company shall conduct performance testing every three years, unless the Department approves less frequent testing. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60.	
	iv. Recordkeeping: [Reference Permit APC-82/0981 (A6-1)] The Company shall maintain the following records in accordance with Condition 3(b): A. Records of all performance tests. B. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654	

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	on Limitation(s)/Standard(s) and/or rational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
i. En <u>82/0981</u> A sh by sc	ic Acid (H2SO4): mission Standard: [Reference Permit APC-1/(A6-1)] . H ₂ SO ₄ emissions from the FCCU nall meet one of the following standards: 1. H ₂ SO ₄ emissions shall be reduced y at least 40% across the wet gas crubber system; or 2. The outlet concentration of (2SO ₄ /SO ₃ from the stack shall be no reater than 10 ppmvd	for new components in light liquid and gaseous service. ii. Compliance Method: [Reference Permit APC-82/0981 (A6-1)] Compliance with the Emission Standard B shall be based on monitoring/testing and recordkeeping requirements. iii. Monitoring/Testing: [Reference Permit APC-82/0981 (A6-1)] The Company shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. iv. Recordkeeping: The Company shall maintain records of all performance tests in accordance with Condition 3(b):	 v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.e.1.v vi. Certification Requirement: None in addition to condition 3(c)(3).
82/0981 Pl exceed	(Pb): mission Standard: [Reference Permit APC-1/(A6-1)] be emissions from the FCCU shall not d 4.37 E-04 pounds per thousand pounds are burned.	 ii. Compliance Method: [Reference Permit APC-82/0981 (A6-1)] Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. iii. Monitoring/Testing: [Reference Permit APC-82/0981 (A6-1)] The Company shall conduct performance testing every three years based on Reference Method 12 in Appendix "A" of 40 CFR Part 60, unless the Department approves less frequent testing 	 v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.e.1.v vi. Certification Requirement: None in addition to condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Recordkeeping: [Reference Permit APC-82/0981 (A6-1)] The Company shall maintain records of all performance tests in accordance with Condition 3(b).	
9. Hazardous Air Pollutants (HAPs): [Reference Permit APC-82/0981 (A6-1)] i. Emission Standard: The Company shall comply with all the applicable requirements of 40 CFR Part 63, subpart UUU.	 ii. Compliance Method: [Reference Permit APC-82/0981 (A6-1)] Compliance with the Emission Standard shall be based on monitoring/testing and recordkeeping requirements iii. Monitoring/Testing: [Reference Permit APC-82/0981 (A6-1)] A. CO emissions shall be monitored by CEMS. B. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR part 60. iv. Recordkeeping: [Reference Permit APC-82/0981 (A6-1)] The Company shall maintain the following records in accordance with Condition 3(b): A. The hourly CO as measured by the CO CEMS. B. CEMS data, calibration and audit results and stack test results. 	 v. Reporting Requirement: In addition to those required by Condition 3(c)(2) A. The Company shall submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. [Reference: 40 CFR 63, Subpart UUU, §63.1575(c)] vi. Certification Requirement: None in addition to condition 3(c)(3).
Visible Emissions: i. Emission Standard: A. The Company shall not cause or allow the emission of visible air	ii. Compliance Method: Compliance with Emission Standards A and B shall be based on Monitoring/Testing requirements. [Reference Permit APC-82/0981 (A6-1)].	v. Reporting Requirement: Comply with "General Conditions" in Condition 3, Table 1.e.1.v

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84 and Permit: APC-82/0981(A6-1)]. B. The Company shall not cause or allow the emission of visible air contaminants and/or smoke from the FCCU WGS stack, the shade or appearance of which is greater than 30 percent opacity, except for one 6	iii. Monitoring/Testing: The company shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCCU WGS stack, when it is operating, shall not be greater than 30% shall be based upon maintaining a minimum delta-P of 6 inches WC and a minimum discharge pressure with a single quench/pre-scrubber recirculation pump of 115 psig both on a minute basis. [Reference Permit APC-82/0981 (A6-1)]. iv. Record keeping: The Company shall maintain in accordance with Condition 3(b), detailed daily records of observations of visible emissions or the absence of visible emissions, or daily visible emissions observations or other records identified in the approved alternative plan. [Reference Permit APC-82/0981 (A-6-1)].	vi. Certification Requirement: None in addition to Condition 3(c)(3).
f. Emission Unit 24: Refinery Gas Plant (No emission points, i.e., This unit has only fugitive emissions that are covered under Section o under the heading "Facility Wide Requirements")		
g. <u>Emission Units No. 25:</u> Reformer and Reformulated Gasoline 2000 Project (RFG 2K Project): Cracked Naphtha Hydrotreater		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
(CNHT) Unit, Butamer Unit and Cooling Tower (Emission points 25-1 and 25-2)		
1. General conditions applicable to all pollutants: i. Operational Limitations: A. The heat inputs to 25-H-401 and 25-H-402 shall not exceed 107 mmBtu/hour and 78.7 mmBtu/hour respectively, both on a twenty-four hour block average (i.e., calendar day) basis. [Reference: Permit: APC-98/0522] B. At all times, including periods of startup, shutdown, and malfunction, the Company shall maintain and operate the equipment and process covered by this section, including all structural and mechanical components of all equipment and processes and all associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. [Reference: Permit: APC-98/0522] C. The sulfidic caustic stream from the CNHT Unit shall be treated in the spent caustic treater before being discharged to the WWTP. [Reference: Permit: APC-98/0523] D. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in units 25-H-401 and 25-H-402. E. The hydrogen sulfide (H ₂ S) content in the desulfurized RFG shall not exceed 162 ppmv(d) (0.10 gr/dscf) on a 3	 ii. Compliance Method: [Reference: Permit: APC-98/0522] A. Compliance with operational limitation A. shall be demonstrated using hourly fuel usage and HHV obtained for that day. B. Compliance with operational limitation B. shall be based on recordkeeping. C. Compliance with operational limitations C. and D shall be based on operating and maintenance procedures and recordkeeping. D. Compliance with operational limitation in E shall be based on CEMS iii. Monitoring/Testing: [Reference: Permit: APC-98/0522], Permit: APC-98/0523 and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The Company shall monitor fuel gas usage, on an hourly basis. B. The Company shall monitor fuel HHV on a daily basis. The minimum data capture requirement for the HHV of the fuel shall be no less than 95 percent of the time in any twelve consecutive months, i.e, the Company may miss no more than 18 days of sampling and/or analyzing the fuel in any twelve consecutive months. For any missing data the Company shall substitute the highest recorded daily HHV for the previous month. [Reference: Permit: APC-98/0522] C. The Company shall monitor H₂S concentration in RFG continuously. The 	 v. Reporting Requirement: In addition to Condition 3(c)(2). [Reference:Permit:APC-98/05222, Permit: APC-98/0523] and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. The Company shall comply with the following semi-annual excess emission reports. The reports for the preceding quarter shall be submitted to the Department by January 31 and July 31 of each calendar year with a summary of all excess emissions for the semi-annual period. The summary shall include: The name and location of the facility; The subject sources that caused the excess emissions; The time and date of the first observation of the excess emissions; The cause and expected duration of the excess emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and The proposed corrective actions and schedule to correct the conditions causing the excess emissions. All rolling 3 hour periods during which the average concentration of H₂S as measured by the H₂S

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology	Demonstrate (Compliance Constitution
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
hour rolling average basis.	monitoring instrument shall be located downstream of all process steps that increase the concentration of H ₂ S in RFG prior to its being combusted in any fuel burning device. The H ₂ S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F" The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B." The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." iv. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): [Reference: Permit: APC-98/0522] and APC-98/0523]. A. Daily fuel HHV B. Record of operating hours of each heater C. Hourly fuel usage by each heater. D. All 3-hour rolling averages of H ₂ S content in RFG. E. Data capture of daily fuel HHV; and F. CEMS data, calibration and audit results and stack test results.	continuous monitoring system exceeds 162 ppmv (dry) or).10 grain/dscf; 8) Higher heating values of the RFG and percent data capture in any twelve consecutive months 9) Calculated fugitive VOC emissions in tons per year by component type on a rolling semi-annual basis; 10) Calculated fugitive VOC emissions in tons per year from cooling tower operations; 11) Reports of cooling water VOC monitoring B. The Company shall submit quarterly H ₂ S CMS reports by January 31, April 30, July 31 and October 31 of each calendar year. The H ₂ S CMS report shall include a report listing all rolling 3 hour periods during which the average concentration of H ₂ S as measured by the H ₂ S CMS exceeds 162 ppmv (dry) or 0.10 grain/dscf, quarterly audit results, data capture for the period and details of out of control periods. The data submitted with the Company's quarterly H ₂ S CMS NSPS report for the facility shall satisfy this reporting requirement.
		vi. Certification Requirement: None in addition to Condition 3(c)(3).
2. Particulate Matter:	iii. Compliance Method: [Reference: Permit: APC-	vi. Reporting Requirement: In addition to

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i. Emission Standards: A. PM ₁₀ emissions shall not exceed the following: [Reference: Permit: APC-	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping 98/0522/ A. Compliance with the emission standard A. shall be based on the fuel gas usage for	Reporting/Compliance Certification complying with "General Conditions" in Condition 3, Table 1.g.1.v [Reference: Permit APC-98/0523-Operation]
1. For 25-H-401:3.3 TPY on a rolling twelve month basis 2. For 25-H-402: 2.5 TPY on a rolling twelve month basis 3. For Units 25-H-401 and 25-H-402: 7.6 lb/mm SCF of fuel gas combusted B. PM emissions shall not exceed 0.3lb/mmBtu heat input, maximum 2-hour average. [Reference: Regulation No. 4 Section 2.1 dated 2/1/81] C. Cooling tower PM ₁₀ emissions shall not exceed 6.6 tons per year on a rolling twelve month basis. [Reference: Permit: APC-98/0523]	each heater. B. Compliance with emission standard B. shall be based on compliance with Emission Standard A. 3. C. Compliance with emission standard C shall be based on the proper operation of the high-efficiency mist eliminators having a vendor guaranteed emission factor of 0.002 percent drift loss per pound of cooling water circulated and on the monitoring requirements. [Reference: Permit: APC-98/0523] iv. Monitoring/Testing: [Reference: Permit: APC-98/0522, Permit: APC-98/0523 and Regulation No. 30 Section 6(a)(3)(i)(B) and dated 12/11/00] A. The Company shall conduct a quarterly test of total solids using Method 2540B of Standard Methods for the Examination of Water and Wastewater; B. The Company shall continuously monitor cooling water flow rate.	(NSPS) RACT) (NESHAP); A. All periods when calculated PM10 emission rates from the cooling tower exceed 6.6 TPY on a twelve month rolling average basis. vii. Certification Requirement: None in addition to Condition 3(c)(3).
3. Sulfur dioxide (SO ₂₎ : i. Emission Standards:	v. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): [Reference:Permit:APC-98/0522, Permit:APC-98/0523 and Regulation No. 30 Section 6(a)(3)(i)(B) and dated 12/11/00] A. Results of weekly Method 2540B tests B. Hourly cooling water flow rates iii. Compliance Method: [Reference: Permit:APC-98/0522]	v. Reporting Comply with "Conditions Applicable to All

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
[Reference: Permit: APC-98/0522] A. For 25-H-401: 12.6 TPY on a rolling twelve month basis B. For 25-H-402: 9.2 TPY on a rolling twelve month basis	A. Compliance with Emission Standards A and B shall be based on the rolling twelve month fuel usage and the rolling twelve month average S content of the fuel as determined using H ₂ S CEMS. iv. Monitoring/Testing: Comply with "Conditions Applicable to All Pollutants" in Condition 1, Table 3.1.g.iii v. Recordkeeping: Comply with "Conditions Applicable to All Pollutants" in Condition 1, Table 3.1.g.iv	Pollutants" in Condition 3, Table 1.1.g.v. vi. Certification Requirement: None in addition to those listed in Condition 3(c)(3) of this permit.
 4. Nitrogen Oxides (NO_x): Emission Standard: [Reference: Permit: APC-98/0522] A. For 25-H-401: 13.7 TPY on a rolling twelve month basis B. For 25-H-402: 10.1TPYon a rolling twelve month basis C. For 25-H-401 and 25-H-402: 0.029lb/mmBtu. 	 iii. Compliance Method: [Reference:Permit:APC-98-0522] Compliance with the emission standards shall be based on the fuel gas usage for each heater, the HHV of the fuel obtained from daily samples and the annual stack test based emissions factors. iv. Monitoring/Testing: [Reference:Permit:APC-98-0522] Annual stack emission testing shall be conducted using EPA Reference Method 7 E in Appendix "A" of 40 CFR Part 60 on each heater to determine compliance with the NO_x emission factor of 0.029 lb/mmBtu. v. Recordkeeping: The Company shall maintain the following records: [Reference:Permit:APC-98-0522] and Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00] 	 v. Reporting: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.g.v. vi. Certification Requirement: None in addition to those listed in Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	i. Stack test data	
 5. Carbon Monoxide (CO): i. Emission Standard: [Reference: Permit: APC-98/0522] A. For 25-H-401: 12.9 TPY on a rolling twelve month basis. 	ii. Compliance Method: [Reference: Permit: APC-98/0522] Compliance with the emission standards shall be based on the fuel gas usage for each heater.	v. Reporting: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.g.v. vi. Certification:
 B. For 25-H-402: 9.5 TPY on a rolling twelve month basis. C. For 25-H-401 and 25-H-402: CO emissions shall not exceed 35 lb/mmSCF fuel gas combusted 	iii. Monitoring/Testing: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1 1.g.iii iv. Recordkeeping:	vi. Certification: None in addition to those required by Condition 3(c)(3) of this permit.
	Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1 1.g.iv	
 6. Volatile Organic Compounds (VOCs): Emission Standard: VOC emissions shall not exceed: A. For 25-H-401 and 25-H-402: 2.8lb/mmSCF of fuel gas combusted. [Reference: Permit: APC-98/0522] B. For the CNHT, Butamer and Alkylation Units fugitive emissions shall not exceed 8.4 tons per year on a rolling quarterly basis. [Reference: Permit: APC-98/0523] C. For the cooling tower: 5.5 tons per year on a rolling quarterly basis. [Reference: Permit: APC-98/0523] 	ii. Compliance Method: A. Compliance with the emission standard A. shall be based on fuel gas usage for each heater. [Reference: Permit:APC-98/0522] B. Compliance with the emission standards B. and C. shall be based on the monitoring and testing requirements [Reference: Permit:APC-98/0523] iii. Monitoring/Testing: [Reference: Permit:APC-98/0522 and Permit:APC-98/0523, and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] 1. For determining compliance with Emission Standard B the Company shall use the results of the quarterly LDAR monitoring program using the EPA Correlation Approach described in the 1995 Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017 dated November 1995. 2. For determining compliance with Emission Standard C., the cooling	 v. Reporting: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.g.v. vi. Certification: None in addition to those required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	water flow rate shall be monitored continuously and the VOC concentration in the cooling water obtained quarterly using a method approved by the Department. To determine the cooling water VOC concentration, samples shall be taken at the entrance and exit of the cooling tower and at the point of makeup water addition. The entrance is the point at which cooling water leaves the cooling tower prior to being returned to the process equipment. The exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid. A minimum of three sets of samples shall be taken at the entrance and exit and the point of make up water entry. The average concentrations shall then be calculated for each set of samples.	
	 iv. Recordkeeping: The Company shall maintain the following records: Reference: Permit: APC-98/0522 and Permit: APC-98/0523, and Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Results of quarterly LDAR monitoring showing calculated VOC emissions in tons per year by component type on a rolling quarterly basis B. Results of cooling water VOC monitoring C. Hourly cooling water flow rates. 	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
7. Visible Emissions: The Company shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20)	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. [Reg. No. 30 Section 6(a)(3) dated 12/11/00].	v. Reporting Requirement: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.g.v.
percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84].	 iii. Monitoring/Testing: A. The Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1 If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. 2 If no visible emissions are observed, no further action is required. B. If required under paragraph A above, the Company shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteensecond intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. [Reference Reg. No. 20, Section 1.5(c) dated 12/7/88]. 	vi. Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	 [Reference Reg. No. 30 Section 6(a)(3) dated 12/11/00]. iv. Record keeping: The following records shall be maintained in accordance with Condition 3(b) [Reference Reg. No. 30 Section 6(a)(3) dated 12/11/00] A. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these units shall be maintained and made available to the Department upon request 	
h. Emission Units No. 26: Polymerization Unit (No emission points, i.e, This unit has only fugitive emissions that are covered under Section o under the hearing "Facility Wide Requirements")		
i. Emission Units No. 27: Alkylation Unit (No emission points, i.e. This unit has only fugitive emissions that are covered under Section o under the heading "Facility Wide Requirements")		
j. Emission Units No. 28: Sulfur Recovery Area (SRA); Claus Units I and II; Sulfur Pits and Shell Claus Offgas Treatment (SCOT) Units I and II. (Emission points 28-1 and 28-2)		
Conditions Applicable to Multiple Pollutants i. Operational Limitations [Reference: Permit APC-98/0264(A6)] A. The SRA shall be operated so as to not exceed the following Equivalent Sulfur Plant Capacity (ESPC) expressed in long tons per day (LTPD), under the following	 ii. Compliance Method [Reference: Permit APC-98/0264(A6)] A. Compliance with Operational Limitations A, B, D, E and H shall be based upon recordkeeping. B. Compliance with Operational Limitation C shall be based upon a continuous monitoring system ("CMS"). 	v. Reporting: In addition to those required by Condition 3(c)(2) of this permit,, the Company shall submit the following reports: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC- 98/0264(A6)] A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
operating scenarios: i. When both Claus trains and SCOT units are in operation, the SRA shall not be operated at an ESPC greater than 822 LTPD on a 12 month rolling average. ii. When Claus train I (SRU I) and/or SCOT II is shutdown, Claus train II (SRU II) and SCOT I shall not operate at an ESPC greater than 499 LTPD on a 12 month rolling average. iii. When Claus train II (SRU II) and/or SCOT I is shutdown, Claus train I (SRU I) and SCOT II shall not operate at an ESPC greater than 510 LTPD on a 12 month rolling average.	C. Compliance with Operational Limitation F is defined as maintaining a negative pressure at the sulfur pits as measured on a minute average basis. D. Compliance with Operational Limitation G shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including but not limited to, monitoring results, opacity and process operating data. iii. Monitoring/Testing: [Reference: Regulations 30, Section 6(a)(3)(i)(B), dated 12/11/00] A. The Company shall continuously monitor and record the concentration (dry basis) of H ₂ S in RFG before it is combusted in any fuel burning device. The monitoring	each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Company. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The required reports shall contain the following information: 1. The name and location of the facility; 2. The subject sources that caused the excess emissions 3. The time and date of the first observation of the excess emissions 4. The cause and expected duration of the excess emissions
 B. The combined heat input to SCOT I (28-S-203) and SCOT II (28-S-804) shall not exceed 865,000 mmBtu in any rolling twelve month period. C. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired 	instrument shall be located downstream of all process steps that increase the concentration of H ₂ S in RFG prior to its being combusted in any fuel burning device. The H ₂ S CEMS shall conform to the requirements of Performance	5. The estimated rate of emissions (expressed in the units of the applicable emission or operational limitation) for each excess emissions event and the operating data and calculations used in determining the quantity of the excess
in the SCOT I and SCOT II units. The hydrogen sulfide content in the RFG combusted in the SCOT incinerators shall not exceed 0.10 grain/dscf on a 3 hour rolling average. D. Except as referenced in Condition 3, Table 1Condition j 2 ii, tail gases from SRU I and/or SRU II shall be treated by the SCOT I Unit and/or the	Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F" The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] B. The Company shall continuously monitor the pressure at the sulfur pits.	emissions 6. The proposed corrective actions and schedule to correct the conditions causing the excess emissions 7. SRA operating rates greater than those in Operational Limitation A. 8. SCOT I and II fuel consumption and fuel HHV on a monthly basis and on a rolling 12 month basis during periods

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
SCOT II Unit at all times. E. Except as provided in Condition 3 Table 1, Condition j.3.ii., tail gases from SRU I and/or SRU II shall be treated by the SCOT I Unit and/or the SCOT II Unit at all times. F. The steam eductor system shall be operating properly at all times when molten sulfur is stored in the sulfur pits. G. At all times, including periods of startup, shutdown, and malfunction, the Company shall maintain and operate the equipment and processes covered by this Permit including all structural and mechanical components of all equipment and processes and all associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. H. The Company shall carry out an annual tune up of each SCOT incinerator burner.	iv. Recordkeeping The Company shall maintain the following records in accordance with Condition 3(b): [Reference: Permit APC-98/0264(A6)] A. Daily sulfur production from each Claus Unit B. Logs of annual tune up performed on the SCOT incinerator burners C. SCOT I and SCOT II fuel usage, and HHV D. All periods when the pressure at the sulfur pits is not below atmospheric pressure.	where the combined heat input to SCOT I and SCOT II exceeds the heat input limit in Operational Limit B. 9. All periods when the pressure at the sulfur pits is not below atmospheric. B. The Company shall submit the following quarterly CEMS reports by January 31, April 30, July 31 and October 31 of each calendar year: 1. The SO ₂ CERMS report shall include a report of excess emissions, quarterly audit results, data capture for the period and details of out of control periods. 2. The H ₂ S CMS report shall include a report listing all rolling 3 hour periods during which the average concentration of H ₂ S as measured by the H ₂ S CMS exceeds 162 ppmv (dry) or 0.10 grain/dscf, quarterly audit results, data capture for the period and details of out of control periods. The data submitted with the Company's quarterly H ₂ S CMS NSPS report for the facility shall satisfy this reporting requirement. C. The Company shall notify the Department's Air Quality Management Section, of shut downs and start ups with as much advanced notice as practicable. vii. Certification Requirement: None in addition to Condition 3(c)(3)
Particulate Matter: i. Emission Standards: [Reference: Permit APC-	ii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit <u>APC-</u>	v. Reporting Requirements: Comply with "Conditions Applicable to Multiple Pollutants"

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
A. PM ₁₀ emissions shall not exceed 5.1 lb/hr in each SCOT stack and 22.3 TPY combined from both SCOT stacks. All TSP emissions shall be considered PM ₁₀ . B. PM emissions shall not exceed 0.3 lb/mmBtu heat input, maximum 2-hour average. [Reference: Regulation No. 4 Section 2.1 dated 2/1/81]	28/0264(A6)] Compliance with the emission standards A. and B shall be based on monitoring/testing requirements. iii. Monitoring/Testing: [Reference: Permit APC-98/0264(A6)] A. The Company shall conduct a stack test at 5 year intervals while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Company shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. Stack testing shall be performed in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60 and Reference Method 202 in Appendix "M" of 40 CFR Part 51, or other testing methodology proposed by the Company and approved by the Department. iv. Recordkeeping: [Reference: Permit APC-98/0264(A6)] The Company shall maintain records of all performance tests in accordance with Condition 3(b).	in Condition 3, Table 1.j.1.v. vi. Certification Requirement: None in addition to Condition 3(c)(3)
3. Sulfur dioxide (SO ₂): [Reference: Permit APC-98/0264(A6)] i. Emission Standard: SO ₂ emissions shall not exceed 0.025 percent by volume (250 ppm) in each SCOT stack at zero percent oxygen on a dry basis on a twelve hour	iii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] A. Compliance with the emission standard shall be determined by using continuous emissions rate monitoring systems	 vi. Reporting Requirement: In addition to those required by Condition 3(c)(2) A. The Company shall submit semiannual reports by January 31 and July 31 of each calendar

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
rolling average basis, except during startup or shutdown conditions, 153.4 lb/hour calculated on a 24 hour rolling average basis and 672 TPY combined from both SCOT stacks. During startup and shutdown conditions, the SO ₂ emission limits listed in the Operational Limitation shall apply in lieu of the 250 ppm limit. ii. Operational Limitations: [Reference: Permit APC-98/0264(A6)] SULFUR RECOVERY AREA START UP AND SHUT DOWN SCENARIOS The following short term emission limits listed below shall apply during start up and shut down scenarios in lieu of the short term emission limits (i.e., 250 ppm and 153.4 lb/hr) identified in the Emission Standard: 1. SCENARIO 1: Planned SCOT I and/or SCOT II Shut Down: When either SCOT unit shut down is planned, the stand by SCOT unit shall be brought to a state of readiness for operation before the operating SCOT unit is taken out of service. Within 2 hours after the operating SCOT unit. The maximum amount of SO ₂ that shall be emitted during this 2-hour period shall not exceed 4.2 tons. 2. SCENARIO 2: Melting and Burnout After Planned Shut Down	(CERMS) to continuously monitor SO ₂ emissions from the stacks of both SCOT I and SCOT II. B Compliance with the operational limitation shall be demonstrated by the monitoring requirements. iv. Monitoring/Testing [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6I)] A. The SO ₂ CERMS on SCOT Units I and II shall conform to the Quality Assurance Procedures in Appendix "F" of 40 CFR Part 60. B. During start-up and shutdown periods of incineration, ambient air monitoring data for the affected period shall be collected daily. v. Recordkeeping: The Company shall maintain the following records in accordance with Condition 3(b): [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6I)] A. CERMS data showing SO ₂ emissions in lbs/hour from the stacks of SCOT I and SCOT II including results of daily calibration, quarterly cylinder gas audits and annual relative accuracy test audits for the CERMS.	year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. [Reference: 40 CFR 63, Subpart UUU, §63.1575(c)] B. During planned start-up and shutdown periods of incineration, ambient air monitoring data for the affected period shall be submitted to the Department daily. At the Department's request, copies of available air monitoring data shall be furnished to the Air Quality Management Division. vii. Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
of SRU I and SRU II:		
After SRU I or SRU II has been shut		
down, the off gases resulting from the		
residual sulfur melting and burnout		
shall be incinerated before exiting the		
stack. The melting and burn-out		
procedure shall not exceed 7 days.		
The maximum amount of SO ₂		
resulting from this procedure shall not		
exceed 15 tons per day.		
3. SCENARIO 3: Planned Start Up of		
SRU I and SRU II: When SRU-I or		
SRU-II is returned to service the tail		
gas from the unit being returned to		
service shall be incinerated until the		
proper ratio of H ₂ S:SO ₂ in the acid		
feed gas is attained. This ratio shall		
be established within 2 hours at which		
time the tail gas shall be fed to either		
SCOT Unit. During this start-up		
period the emissions of SO ₂ shall not		
exceed 4 tons per start up event for		
either SRU.		
4. SCENARIO 4: Burnout of SCOT		
Reactor During Shutdown of Either		
SCOT Unit:		
After the planned shut down of either		
SCOT I or II, in order to save the		
catalyst it can be slowly burned free		
of sulfur. SO ₂ emissions from this		
operation shall not exceed 9.6 tons,		
over a 6 day period.		
During start-up and shutdown periods of		

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
incineration, corrective action shall be taken if there is any indication that an exceedance of ambient air standards might take place.		
4. Nitrogen Oxides (NOx): i. Emission Standard: [Reference: Permit APC-98/0264(A6)] NOx emissions shall not exceed 0.12 lb/mmBtu in each SCOT stack and 51.9 TPY combined from both SCOT stacks.	 iii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] Compliance with the emission standard shall be based on the monitoring/testing requirements. iv. Monitoring/Testing [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] The Company shall conduct an annual stack test unless the Department approves less frequent testing. The Department reserves the right to require more frequent testing or require installation of CEMS v. Recordkeeping: The Company shall maintain records of all performance tests in accordance with Condition 3(b). 	vi. Reporting Requirements: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.v. vii Certification Requirement: None in addition to Condition 3(c)(3).
5. Carbon Monoxide (CO): i. Emission Standard: : [Reference: Permit APC-98/0264(A6)] CO emissions shall not exceed 100 ppmvd in each SCOT stack and 90.4 TPY combined from both SCOT stacks.	 ii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] Compliance with the emission standard shall be based on the monitoring/testing requirements. iii. Monitoring/Testing [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] The Company shall conduct an annual stack test unless the Department approves less frequent 	 v. Reporting Requirements: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.v. vi Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
6. Volatile Organic Compounds (VOCs):	testing. The Department reserves the right to require more frequent testing or require installation of CEMS iv. Recordkeeping: The Company shall maintain records of all performance tests in accordance with Condition 3(b). ii. Compliance Method: [Reference: Regulation No. 30]	v. Reporting Requirements: Comply with
i. Emission Standard: [Reference: Permit APC-98/0264(A6)] VOC emissions (as methane) shall not exceed 0.003 lb/mmBtu from each SCOT stack and 1.3 TPY combined from both SCOT stacks.	Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC- 98/0264(A6)] Compliance with the emission standards A. and B shall be based on monitoring/testing requirements. iii. Monitoring/Testing: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC- 98/0264(A6)] A. The Company shall conduct a stack test at 5 year intervals while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Company shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. The Company may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing.	"Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.v. vi Certification Requirement: None in addition to Condition 3(c)(3).
	The Company shall maintain records of all	

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Condition 3 – Table 1 (Specific Requirements)

	Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
7.	Hydrogen Sulfide (H ₂ S) and Total reduced Sulfur (TRS) Compounds: i. Emission Standard: [Reference: Permit APC-98/0264(A6)] H ₂ S emissions shall not exceed 2.9E-02 lb/mmBtu in each SCOT stack and 12.7 TPY combined from both SCOT stacks.	performance tests in accordance with Condition 3(b). ii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] Compliance with the Emission Standard shall be based on an initial performance test. iii. Monitoring/Testing: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] The initial performance test shall be conducted while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Company shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. iv. Recordkeeping: The Company shall maintain records of the initial performance test in accordance with Condition 3(b)	v. Reporting Requirements: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.v. vi Certification Requirement: None in addition to Condition 3(c)(3).
8.	Sulfuric Acid (H ₂ SO ₄): i. Emission Standard: [Reference: Permit <u>APC-98/0264(A6)</u>] H ₂ SO ₄ emissions shall not exceed 2.7 E-02 lb/MMBtu and 12.7 TPY	 ii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC-98/0264(A6)] Compliance with the Emission Standard shall be based on an initial performance test. iii. Monitoring/Testing: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit APC- 	v. Reporting Requirements: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.v. vi Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	98/0264(A6)] The initial performance test shall be conducted while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Company shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. iv. Recordkeeping: The Company shall maintain records of the initial performance test in accordance with Condition 3(b)	
9. Visible Emissions: The Company shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84].	 ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and record keeping. [Reg. No. 30 Section 6(a)(3) dated 12/11/00]. iii. Monitoring/Testing: A. The Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1 If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. 2 If no visible emissions are observed, no further action is required. B. If required under paragraph A above, the 	v. Reporting Requirements: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, Table 1.j.1.v. vi Certification Requirement: None in addition to Condition 3(c)(3).

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Company shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual observations at fifteensecond intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. [Reference Reg. No. 20, Section 1.5(c) dated 12/7/88]. [Reference Reg. No. 30 Section 6(a)(3) dated 12/11/00]. iv. Record keeping: [Reference Reg. No. 30, Section 6(a)(3)(ii) dated 12/11/00]. The Company shall maintain the following records in accordance with Condition 3(b): A. Observation records shall be maintained and made available to the Department upon request.	
k. Emission Units No. 37: Steam Methane Reformer Hydrogen Plant, Heaters 37-H-1 A/B; (Emission points 37-1A and 37-1B)		
 Conditions applicable to multiple pollutants: Operational Limitation: A. The heat input to 37-H-1 A/B shall not exceed 439 mmBtu/hr on a 365 day rolling average basis.	ii. Compliance Method: Compliance with the operational limitations shall be based on monitoring/testing and recordkeeping requirements. [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00]	v. Reporting: [Reference: Regulation 30, Section 6(a)(3)(ii) dated 12/11/00] In addition to those required by Condition 3(c)(2) of this permit: A. The Company shall comply with the following semi-annual excess emission

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
 B. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in unit 37-H-1 A/B. C. The hydrogen sulfide (H₂S) content in the desulfurized RFG shall not exceed 162 ppmv(d) (0.10 gr/dscf) on a three (3) hour rolling average basis. 	 iii. Monitoring/Testing: [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00] A. The Company shall monitor the fuel usage by 37-H-1 A/B on an hourly basis. B. The Company shall obtain a daily sample of the fuel gas combusted in 37-H-1 A/B and analyze it to determine the daily heat input rate to this unit. C. The Company shall monitor H₂S concentration in RFG continuously. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H₂S in RFG prior to its being combusted in any fuel burning device. The H₂S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the quality assurance requirements of 40 CFR 60, Appendix "F." The relative accuracy evaluation shall be conducted using method 11 of 40 CFR 60, Appendix "A." iv. Recordkeeping: [Reference: Regulation 30, Section 6(a)(3)(ii) dated 12/11/00] The Company shall maintain the following records: A. All Monitoring/Testing records necessary to demonstrate compliance with Operational Limitation A B. All 3-hour rolling averages of H₂S content in RFG. C. CEMS data, calibration and audit results. 	report. The reports for the preceding semi-annual period shall be submitted to the Department by January 31 and July 31 of each calendar year with a summary of all excess emissions for the semi-annual period. The summary shall include: a) The name and location of the facility; b) the subject sources that caused the excess emissions; c) The time and date of the first observation of the excess emissions; d) The cause and expected duration of the excess emissions; e) For numerical emission limits the estimated amount of emission expressed in the units of applicable emission limitation. The operating data and calculations used in determining the magnitude shall be submitted to the Department upon request; f) The proposed corrective actions and schedule to correct the conditions causing the excess emissions; and g) All periods of exceedances of the 365 day rolling average daily heat input to 37-H-1 A/B. B. The Company shall submit the H2S quarterly CMS report by January 31, April 30, July 31 and October 31 of each calendar year. The H ₂ S CMS report shall include a report listing all rolling 3 hour periods during which the average concentration of H ₂ S as measured by

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. Particulate Matter: i. Emission Standards: PM emissions shall not exceed 0.3 lb/mmBtu heat input, maximum 2-hour average. [Reference: Regulation No. 4 Section 2.1 dated 2/1/81]	 ii: Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with the emission standard shall be based on the fuel quality and by the monitoring/testing requirements iii. Monitoring/Testing: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.k.1.iii iv. Recordkeeping: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.k.iv. 	the H ₂ S CMS exceeds 162 ppmv (dry) or 0.10 grain/dscf, quarterly audit results, data capture for the period and details of out of control periods. The data submitted with the Company's quarterly H ₂ S CMS NSPS report for the facility shall satisfy this reporting requirement. vi. Certification: None in addition to those listed in Condition 3(c)(3) of this permit. vi. Reporting Requirements: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.k.v. vii. Certification Requirement: None in addition to Condition 3(c)(3).
 3. Sulfur dioxide (SO₂): i. Operational Limitations: A. No sulfur compounds shall be emitted to the atmosphere during regeneration of the carbon drum absorption system.	 ii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with operational limitation A shall be based on routing all emissions during regeneration of the carbon drum absorption system to the refinery flare recovery system. iii. Monitoring/Testing: Comply with "Conditions 	 v. Reporting Requirements: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.k.v. vi. Certification Requirements: None in addition to those listed in Condition 3(c)(3) of this permit.

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
4. Nitrogen Oxides (NO _x): i. Emission Standard:	Applicable to All Pollutants" in Condition 3, Table 1.k.1iii. iv. Recordkeeping: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.k.1.iv. ii. Compliance Method: Compliance with the emission standards shall	v. Reporting Requirements: [Reference: Permit: <u>AOM-003/00016-1</u> dated May 1, 2002 and Regulation No
A. NO _x emissions shall not exceed 0.20 lb/mmBtu on a 24 hour rolling average basis. [Reference: Regulation No. 12 Section 3.2(a) dated 11/24/93] B. During the ozone season (May 1, 2008 through September 30, 2008) the Company shall hold in its compliance account and/or its overdraft account, as of the NO _x allowance transfer deadline of each control period, a quantity of NO _x allowances available for deduction that is equal to or greater than the total NO _x emissions from 37-H-1 for that control period. [Reference:Permit:AQM-003/00016-1 dated May 1, 2002 and Regulation No. 39 Section 2.a. dated 12/11/00]	be determined by CEMS. [Reference: Regulation No. 12 Section 3.2(d)(i) dated 11/24/93] iii. Monitoring/Testing: The CEMS for NO _x and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 75, Appendix "A". Quality Assurance procedures for the NO _x and the diluent analyzers shall be demonstrated in accordance with 40 CFR, Part 75, Appendix "B". [Reference: Permit: 40M-003/00016-1 dated May 1, 2002 and Regulation No. 39 Section 8 dated 12/11/00] iv. Recordkeeping: The Company shall maintain the following records: [Reference: Permit: 40M-003/00016-1 dated May 1, 2002, and Regulation No. 39 Sections 7, 8 and 11 dated 12/11/00] A. All periods of exceedances of the emission standards. B. Unless otherwise provided, the owners and operators of the NO _x Budget source and each NO _x Budget unit at the source shall keep on site at the source each of the	In addition to those required by Condition 3, Table 1, k.1.v the Company shall submit the following reports: A. The Company shall for each occurrence of excess emissions, within 30 calendar days of becoming aware of such occurrence, supply the Department with the following information: a) The name and location of the facility; b) the subject sources that caused the excess emissions; c) The time and date of the first observation of the excess emissions; d) The cause and expected duration of the excess emissions; e) For numerical emission limits the estimated amount of emission (expressed in the units of applicable emission limitation; f) The proposed corrective actions and schedule to correct the conditions causing the excess emissions B. NOx authorized account representative of a NOx Budget source and each NOx

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the permitting authority or the Administrator.	Budget unit at the source shall submit the reports and compliance certifications required under the NOx Budget Trading Program, including those under Regulation No. 39 § 7, 8, and 11.
	1. The account certificate of representation under Regulation No. 39 § 6 and all documents that demonstrate the truth of the statements in the account certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new	vi. Certification: [Reference: Permit: AOM-003/00016-1 dated May 1, 2002, and Regulation No. 39 Sections 6.d. dated 12/11/00] In addition to those listed in Condition 3(c)(3) of this permit, each document submitted to the Department and the Administrator pursuant to this NOx Budget permit shall be signed and certified by the Authorized Account Representative and shall contain the following language:
	account certificate of representation under Regulation No. 39 § 6 changing the NO _x authorized account representative. 2. All emissions monitoring information, in accordance with Regulation No. 39 § 8; provided that to the extent that Regulation No. 39 § 5 provides for a 3 year period for record keeping, the 3 year period shall apply.	"I am authorized to make this submitted on behalf of the owners and operators of the NOx Budget sources or NOx Budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary
	 3. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x Budget Trading Program. 4. Copies of all documents used to complete a NO_x Budget permit application and any other submission 	responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information,

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	under the NO _x Budget Trading Program or to demonstrate compliance with the requirements of the NO _x Budget Trading Program. 5. Records demonstrating that any unit exempted under Regulation No. 39 § 3(b) of this regulation is retired. The owner(s) or operator(s) of that unit bears the burden of proof that the unit is retired.	including the possibility of fine or imprisonment."
5. Volatile Organic Compounds (VOCs): i. Emission Standard: Volatile Organic Compound (VOC) emissions from the CO2 and deaerator vents combined shall be reduced by not less than 81% from baseline levels (Figure 2 of application dated February 12, 2003) and shall not exceed a rate defined by 24 tons during the first year and 13 tons during the last year of the six year catalyst replacement cycle. [Reference: Regulation 24, Section 50 dated 11/29/94 and Permit: APC- 81/0965]	 ii. Compliance Method: Compliance with the emission standard shall be based on the monitoring/testing requirements. iii. Monitoring/Testing: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00 and Permit: APC-81/0965 The Company shall conduct a stack test within 60 days of replacement of the LTS catalyst by the KATALCO 83-3X catalyst, at the end of the first year and at two year intervals thereafter. A "Source Sampling Guidelines and Preliminary Survey Form" must be submitted and found acceptable to the Department at least thirty (30) days prior to the performance testing. Results of the performance testing in triplicate and a certificate of compliance shall be submitted to the Department within ninety (90) days after completion. The tests shall be conducted simultaneously on the CO2 and deaerator vents using the same Department approved test methodology as was used in determining baseline emissions testing in June 2002. The 	v. Reporting: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.k.v. [Reference: Regulation No. 30 Section 6(a)(3)(iii) dated 12/11/00]. vi. Certification: None in addition to those required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	stack test results shall be used to quantify VOC emissions from the CO ₂ and deaerator vents using the following equation: % VOC reduction = 100 [1 – [(CO ₂ vent rate) (1 – fraction of CO ₂ to Air Liquide) + (Deaerator vent rate)]/Baseline CH ₃ OH] where CO ₂ and deaerator vent rates are stack test based VOC emission rates iv. Recordkeeping: The Company shall maintain the following records:	
	A. Stack test results B. Annual quantities of CO ₂ produced and exported to <i>Air Liquide</i>	
6. Visible Emissions: The Company shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84].	 ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. [Reg. No. 30 Section 6(a)(3)dated 12/11/00]. iii. Monitoring/Testing: A. The Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1. If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. 	 v. Reporting Requirement: All records indicating exceedances of the standard in accordance with Condition 3(c)(2). vi. Certification Requirements: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
Special 2(8)// standar u(8)	applicable) and Record Keeping	nopolong, compliance continuous
	2. If no visible emissions are observed,	
	no further action is required.	
	[Reference Reg. No. 30 Section 6(a)(3) dated 12/11/00].	
	B. If required under paragraph A, above, the	
	Company shall in accordance with	
	Subsection 1.5(c) of Regulation No. 20	
	conduct visual observations at fifteen-	
	second intervals for a period of not less	
	than one hour except that the observations	
	may be discontinued whenever a violation of the standard is recorded. The additional	
	procedures, qualification and testing to be	
	used for visually determining the opacity	
	shall be those specified in Section 2 & 3	
	(except for Section 2.5 and the second	
	sentence of Section 2.4) of Reference	
	Method 9 set forth in Appendix A, 40 CFR,	
	Part 60, revised July 1, 1982. [Reference	
	Reg. 20, Section 1.5(c) dated 12/7/88].	
	iv. Recordkeeping: [Reference Reg. No. 30, Section	
	6(a)(3)(i)(B) dated $12/11/00$].	
	A. Observation records shall be maintained	
	and made available to the Department upon	
	request.	
I. [RESERVED]		
m. Emission Units No. 42: Continuous Catalyst		
Regenerator (CCR) Reformer, Reformer		
Charge Heater and Reboiler Heater		
(Emission points 42-1 and 42-2)		

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
 General conditions applicable to all pollutants: Operational Limitations: [Reference: Permits: APC-82/0073 and APC-82/0632 both dated February 8, 1985] A. The heat input to 42-H-1,2,3 shall not exceed 458 mmBtu/hr on a 365 day rolling average basis. B. The heat input to 42-H-7 shall not exceed 80 mmBtu/hr on a 365 day rolling average basis. C. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in 42-H-1,2,3 and 42-H-7. D. The hydrogen sulfide (H₂S) content in the desulfurized RFG shall not exceed 162 ppmvd (0.10 gr/dscf) on a 3 hour rolling average basis E. Notwithstanding limitation D, unit 42-H-1,2,3, may combust process vent gases from the reactor lift engager (42-D-11) and from the CCR lift engager (42-D-11). [Reference Approval NSPS Subpart J Alternate Monitoring Plans dated October 31, 2002.]. 	 ii. Compliance Method: [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] Compliance with the operational limitations shall be based on monitoring/testing and recordkeeping requirements. [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00] iii. Monitoring/Testing: [Reference: Regulation 30, Section 6(a)(3)(i)(B), dated 12/11/00] A. The Company shall monitor the fuel usage by 42-H-1,2,3 and 42-H-7 on an hourly basis. B. The Company shall obtain a daily sample of the fuel gas combusted in 42-H-1,2,3 and 42-H-7 and analyze it to determine the daily heat input rate to this unit. C. The Company shall monitor H₂S concentrations in RFG continuously. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H₂S in RFG prior to its being combusted in any fuel burning device. The H₂S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the quality assurance requirements of 40 CFR 60, Appendix "F." The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." D. The H₂S content of the process vent gas from the reactor lift engages vent and CCR lift engager vent shall be monitored according to the approved Alternate 	 v. Reporting: In addition to those required by Condition 3(c)(2) of this permit: A. The Company shall submit semiannual reports of all periods of exceedances of the 365 daily rolling average heat input to 42-H-1, 2, 3 and 42-H-7. B. The Company shall comply with the following semiannual excess emission reports: The reports shall be submitted to the Department by January 31 and July 31 of each calendar year with a summary of all excess emissions for the preceding semiannual period. The summary shall include: The name and location of the facility; The subject sources that caused the excess emissions; The time and date of the first observation of the excess emissions; The cause and expected duration of the excess emissions (expressed in the units of applicable emission limitation); the proposed corrective actions and schedule to correct the conditions causing the excess emission. The Company shall submit the H₂S quarterly CMS report by January 31, Apri 30, July 31 and October 31 of each calendar year. The H2s report shall include a report listing all rolling 3-hour

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. Particulate Matter: i. Emission Standards for 42-H-1,2,3 and 42-H-7: PM emissions shall not exceed 0.3 lb/mmBtu heat input, maximum 2-hour average. [Reference]	Monitoring Program (AMP). [Reference Approval NSPS Subpart J Alternate Monitoring Plans dated October 31, 2002.] iv. Recordkeeping: The Company shall maintain the following records: A. All Monitoring/Testing records necessary to determine compliance with Operational Limitations A and B. B. All 3-hour rolling averages of H2S content in RFG. C. CEMS data calibration and audit results. [Reference: Regulation 30, Section 6(a)(3)(ii) dated 12/11/00] ii. Compliance Method: [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with the emission standard shall be based on the fuel quality and by the monitoring/testing requirements.	periods during which the average concentration of H ₂ S as measured by the H ₂ S CEMs exceeds 162 ppmv(d) (0.10 gr/dsef), quarterly results, data capture for the period and details out of control periods. The data submitted with the Company's quarterly H ₂ S CMS NSPS report for the facility shall satisfy this reporting requirement. [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00] vi. Certification: None in addition to those listed in Condition 3(c)(3) of this permit. v. Reporting Requirement: None in addition to Condition 3(c)(2).
Regulation No. 4 Section 2.1 dated 2/1/83]. 3. Nitrogen Oxides (NO _X):	 iii. Monitoring/Testing: Comply with "Conditions Applicable to All Pollutants" in Condition 1, Table 3.1.m.iii. iv. Recordkeeping: Comply with "Conditions Applicable to All Pollutants" in Condition 3, Table 1.1.m.iv. ii. Compliance Method: 	v. Reporting: [Reference: Permit AQM-003/00016-1 dated
 i. Emission Standard: For Units 42-H-1,2,3: A. NO_X emissions shall not exceed 0.20 lb/mmBtu on a 24 hour rolling average 	A. Compliance with the emission standards A and B shall be determined by CEMS. [Reference: Regulation No. 12 Section 3.2(d)(i) dated 11/24/93].	May 1, 2002 and Regulation No. 39 Sections 7, 8 and 11 dated 12/11/00] In addition to those listed required by Condition 3(c)(2) of this permit the Company shall submit the following reports.

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Operational Limitation(s)/Standard(s) (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	
dated 11/24/93]. B. During the ozone season (May 1 through September 30) of 2008, the Company shall hold in its compliance account and/or its overdraft account, as of the NO _x allowance transfer deadline of each control period, a quantity of NO _x allowances available for deduction that is equal to or greater than the total NO _x emissions from 42-H-1,2,3 for that control period. [Reference: Permit AOC-003/00016-1 dated May 1, 2002 and Regulation	iii. Monitoring/Testing: A. The CEMS for NO _x and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 75, Appendix "A". Quality Assurance procedures for the NO _x and diluent analyzers shall be demonstrated in accordance with 40 CFR, Part 75, Appendix "B". [Reference: Permit AQM-003/00016-1 dated May 1, 2002 and Regulation No. 39 Section8 dated 12/11/00] iv. Recordkeeping:	 A. Comply with "Conditions Applicable to All Pollutants" in Condition 1, Table 3.1.m.v. B. NO_x authorized account representative of a NO_x Budget source and each NO_x Budget unit at the source shall submit the reports and compliance certifications required under the NO_x Budget Trading program, including those under Regulation No. 39 § 7, 8 and 11. vi. Certification: [Reference: Permit AQM-003/00016-1]
	The Company shall maintain the following records: [Reference: Permit AQM-003/00016-1 dated May 1, 2002 and Regulation No. 39 Sections 7, 8 and 11 dated 12/11/00 and Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00] A. All periods of exceedances of the emission standards B. Unless otherwise provided, the owners and operators of the NO _x Budget source	dated May 1, 2002 and Regulation No. 39 Sections 6.d. dated 12/11/00] In addition to those listed in Condition 3(c)(c) of this permit, each document submitted to the Department and the Administrator pursuant to this NOx Budget permit shall be signed and certified by the Authorized Account Representative and shall contain the following language:
	and each NO _x Budget unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the permitting authority or the Administrator. 1. The account certificate of representation under Regulation No. 39 § 6 and all documents that demonstrate the truth of the	"I am authorized to make this submission on behalf of the owners and operators of the NO _x Budget sources or NO _x Budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all of its attachments. Based on an inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
	statements in the account certificate	my knowledge and belief true, accurate, and
	of representation; provided that the	complete. I am aware that there are
	certificate and documents shall be	significant penalties for submitting false
	retained on site at the source beyond	statements and information or omitting
	such 5 year period until such	required statements and information,
	documents are superseded because	including the possibility of fine or
	of the submission of a new account	imprisonment."
	certificate of representation under	
	Regulation No. 39 § 6 changing the	
	NO _x authorized account	
	representative.	
	2. All emissions monitoring	
	information, in accordance with	
	Regulation No. 39 § 8; provided that	
	to the extent that Regulation No. 39	
	§ 5 provides for a 3 year period for	
	record keeping, the 3 year period	
	shall apply.	
	3. Copies of all reports, compliance	
	certifications, and other submissions	
	and all records made or required	
	under the NO _x Budget Trading	
	Program.	
	4. Copies of all documents used to	
	complete a NO _x Budget permit	
	application and any other submission	
	under the NO _x Budget Trading	
	Program or to demonstrate	
	compliance with the requirements of	
	the NO _x Budget Trading Program.	
	5. Records demonstrating that any unit	
	exempted under Regulation No. 39 §	
	3(b) of this regulation is retired. The	

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	owner(s) or operator(s) of that unit bears the burden of proof that the unit is retired.	
4. Visible Emissions: The Company shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Reg. No. 14, Section 2.1, dated 7/17/84].	 ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. [Reg. No. 30 Section 6(a)(3) dated 12/11/00]. iii. Monitoring/Testing: A. The Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1. If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. 2. If no visible emissions are observed, no further action is required. [Reference Reg. No. 30 Section 6(a)(3) dated 12/11/00]. B. If required under paragraph A, above, the Company shall, in accordance with Subsection 1.5(c) of Regulation No. 20 conduct visual observations at fifteensecond intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is 	 v. Reporting Requirement: All records indicating exceedances of the standard in accordance with Condition 3(c)(2). vi. Certification Requirement: None in addition to Condition 3(c)(3).

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 and 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. [Reference Reg. No. 20, Section 1.5(c) dated 12/7/88]. iv. Record keeping: [Reference Reg. No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]. A. Observation records shall be maintained and made available to the Department upon request.	
 5. Hazardous air pollutants: [Reference: Permit APC-82/0073] i. Emission standards: A. The wet gas scrubber shall reduce uncontrolled emissions of HCl by 97% by weight at all times. B. Total HCl emissions from the CCR Reformer unit shall not exceed 1.6 tons on a 12-month rolling basis. C. The wet gas scrubber shall reduce uncontrolled emissions of chlorine by 95% by weight at all times. D. Total chlorine emissions shall not exceed 0.80 tons on a 12-month rolling basis. 	 iii. Compliance method: [Reference: Permit APC-82/0073] Compliance with the emission standards and operational limitations shall be based on monitoring/testing and recordkeeping requirements. iv. Monitoring/Testing: [Reference: Permit APC-82/0073] A. To demonstrate compliance with the operational limitations, the Company shall operate a continuous monitoring system to measure the following parameters, in accordance with the requirements of 40 CFR Part 63, Subpart UUU, Table 41. 	vi. Reporting Requirements: : [Reference: Permit APC-82/0073] In addition to those required by Condition 3(c)(2) A. The Company shall submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was
ii. Operational limitations:A. The Company shall operate the wet	1. The pH of the scrubbing liquid exiting the scrubber;	inoperative, out of control, repaired or

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ssion Limitation(s)/Standard(s) and/or perational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
gas scrubber at all times according to the procedures of the operation, maintenance and monitoring (OMM) plan, which shall include the information specified in 40 CFR Part 63.1574(f). The minimum hourly average pH of the scrubbing liquid exiting the scrubber shall be 6.56. The minimum daily average liquid-to-gas ratio shall be 0.12. During periods of startup, shutdown, and malfunction, the Company shall operate the CCR Reformer unit and wet gas scrubber in accordance with a written startup, shutdown, malfunction plan (SSMP) pursuant to 40 CFR Part 63.6(e)(3).		adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. vii. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.
	daily average liquid-to-gas ratio; 5. Maintain the daily average liquid-to-gas ratio above the limit established during the performance test; and 6. Comply with the OMM plan. v. Recordkeeping: [Reference: Permit APC-82/0073] The Company shall record the following information in accordance with Condition 3(b): A. A copy of each notification and report submitted pursuant to or supporting any initial Notification of Compliance Status pursuant to §63.10(b)(2)(xiv); B. Records in §63.6(e)(1)(iii) through (v)	

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	Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		related to startup, shutdown and malfunction; and C. Records of performance tests required in §63.10(b)(2)(vii).	
n.	Emission Units No. 45: Refinery Utilities, North & South Flares and Gas Recovery System; Spent Caustic Stripper (Emission points 45-1 and 45-2):		
1.	 Flare Operational Limitations: A. At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the flare system including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. [Reference: 40 CFR 60, Subpart A, §60.11(d), dated 7/1/06] B. The flare shall be operated at all times when emissions may be vented to it. [Reference: 40 CFR 60, Subpart A, §60.18(e), dated 7/1/06] C. At least one flare recovery compressor shall be operational at all times, except during periods of malfunction as defined in Condition 2.e.5. D. The flares shall be designed for and operated with no visible emissions as determined by methods specified in paragraph (f) of 40 CFR 60.18 except 	 ii. Compliance Method A. Compliance with Operational Limitation A will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations and review of operating and maintenance procedures, and inspection of the source. [Reference: Regulation No. 30, Section 6(a)(3)(i)(B), dated 12/11/00 and 40 CFR 60.11(d) dated 7/1/06]. B. Compliance with the other operational standards will be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this condition. [Reference: Regulation No. 30, Section 6(a)(3)(i)(B), dated 12/11/00]. iii. Monitoring/Testing: [Reference: Regulation No. 30, Section 6(a)(3)(i)(B), dated 12/11/00]. A. The Company shall continuously monitor the gas flow to the flares (i.e., the gas not recovered by the recovery compressors). B. A gas sample shall be collected from the flare header weekly and analyzed by a 	 v. Reporting: [Reference: Regulation No. 30, Section 6(a)(3)(iii) dated 12/11/00] A. All records indicating exceedances of the standards in accordance with Condition 3(c)(2)(ii)(B)(3) of this permit. vii. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [Reference Regulation 40 CFR 60.18(c)(1) dated 7/1/06]. E. Except as provided in D above, operation of the flare shall be smokeless. [Reference: Permit APC-81/0830] F. The flare shall be operated with a flame present at all times. [Reference: 40 CFR 60.18(c)(2), dated 7/1/06] G. The flare flame detection device shall be in proper operation whenever the flare is in operation. [Reference: Regulation No. 30, Section 6(a)(3)(i)(B) dated 12/11/00]	gas chromatograph. C. Delaware reportable quantities of pollutants in the flare emissions shall be calculated based on the flow and concentrations measured from the weekly samples unless more representative process operating data can be used to provide concentrations that are different from those obtained from the daily analysis. D. Visible emissions from the flare shall be monitored as follows: 1. The Company shall monitor the opacity from both flare stacks at all times using a video camera. The monitor for the camera shall be in plain sight in the control room at all times. 2. The Company shall conduct daily qualitative observations of the flare using Method 22 to evaluate the presence or absence of smoke and/or visible air contaminants during a continuous fifteen (15) minute period while the flare is in operation. 3. If visible emissions are detected during any daily qualitative survey of visible emissions or is observed at any other time, the Company shall take corrective action and/or conduct a visible emission test using 40 CFR 60, Appendix A,	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Reference Method 22, dated 7/11/06. The observation period is 2 hours and shall be done according to Method 22. [Reference: 40 CFR 60, Subpart A, §60.18(f)(1), dated 7/1/06] 4. The presence of a flare pilot flame shall be monitored at all times using a thermocouple or any other equivalent device to detect the presence of a flame. [Reference: Regulation No. 30, Section 6(a)(3)(i)(B), dated 12/11/00 and 40 CFR 60.18(f)(2), dated 7/1/06]	
	 v. Recordkeeping: The Company shall maintain the following information in accordance with Condition 3(b). [Reference: Regulation No. 30, Section 6(a)(3)(i)(B), dated 12/11/00] A. Date, time and duration of the flaring event. B. Quantity of material flared. C. Calculations showing the amount of reportable quantity releases. D. Results of weekly samples. E. Daily visible emission record. F. Method 22 observations. G. Records indicating the presence of a flame during flare operation. H. Periods of time when the camera monitoring equipment is not operational. 	
2. Spent Caustic Stripper:	iii. Compliance Method: [Reference: Regulation No.	vi. Reporting Requirement: All records

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(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
applicable) and Record Keeping	
A. Compliance with emission standard A. is based on routing the stripper overhead gases as feed to the refinery SRA only. B. Compliance with emission standard B. is based on the monitoring/testing requirements. C. Compliance with the operational limitation is based on the recordkeeping requirements. iv. Monitoring/Testing: The treated spent caustic shall be sampled and tested for sulfide concentration daily. Testing shall be conducted utilizing the CHEMetrics VACUettes sulfide test kit. An alternative test method may be substituted if approved by the Department. [Reference: Permit: APC-95/0381] v. Recordkeeping: The Company shall maintain the following records: [Reference: Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00 and Permit: APC-95/0381] A. Log of daily sampling results B. Log indicating all periods when the spent caustic discharge to the WWTP exceeds emission standard B.	indicating exceedances of the standard in accordance with Condition 3(c)(2). vii. Certification Requirement: None in addition to condition 3(c)(3).
	applicable) and Record Keeping 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with emission standard A. is based on routing the stripper overhead gases as feed to the refinery SRA only. B. Compliance with emission standard B. is based on the monitoring/testing requirements. C. Compliance with the operational limitation is based on the recordkeeping requirements. iv. Monitoring/Testing: The treated spent caustic shall be sampled and tested for sulfide concentration daily. Testing shall be conducted utilizing the CHEMetrics VACUettes sulfide test kit. An alternative test method may be substituted if approved by the Department. [Reference: Permit: APC-95/0381] v. Recordkeeping: The Company shall maintain the following records: [Reference: Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00 and Permit: APC-95/0381] A. Log of daily sampling results B. Log indicating all periods when the spent caustic discharge to the WWTP exceeds emission

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Equipment Leaks of VOC in SOCMI (40 CFR 60, Subpart VV), and Regulation No. 24, Section 29, Leaks from Petroleum Refinery Equipment		
 Pumps in Light Liquids Service. Operational Standards A. Each pump in light liquid service shall be monitored by the methods and procedures in accordance with (iii)(A) of this section. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, subpart VV, §60.482-2(a) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. B. Leak Repair	ii. Compliance Methods Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing A. Periodic Monitoring 1. Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00, except as given in paragraphs (i)(C), (i)(D), and (i)(E) of this section. 2. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(a), dated 7/1/00] ii. Detection of Leaks 1. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected for existing pumps as defined in 40 CFR 63.640. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected for new	 v. Reporting A. All exceedances in accordance with Condition 3(c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)				Reporting/Compliance Certification
2. 3. 4.	b. Equidegate process by a device requisition or, c. Equidegate partice Each base a senso system. Each prinspect indicating pump s		pumps as defined in 40 CFR 63.640. [Reference: Regulation No. 24, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2 dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98] 2. If there are indications of liquids dripping from the pump seal, a leak is detected. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60,Subpart VV, §60.482-2(b), dated 7/1/00] iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	
<u>5.</u>	<u>a.</u> <u>b.</u>	Each sensor as described in paragraph (3) of this section is checked daily or is equipped with an audible alarm, and The Company determines, based on design considerations and operation experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.		
<u>6.</u>	<u>a.</u>	If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
seal system, the barrier fluid system, or both based on the criterion determined in paragraph (C)(5)(b), a leak is detected. b. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 9 of this unit. c. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [Reference: Regulation No. 24, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(d), dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98]. D. Any pump that is designed for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (i)(A), (i)(B), (i)(C), and (iii) of this section if the pump: 1. Has no externally actuated shaft penetrating the pump housing. 2. Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR 60, Subpart VV, §60.485(c), dated 7/1/00, and	applicable) and Record Keeping	

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	ssion Limitation(s)/Standard(s) and/or perational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	3. Is tested for compliance with paragraph (D)(2) initially upon designation, annually, and at other times required by the Department. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(e) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].		
E.	If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system, it is exempt from this section. [Reference: Regulation No. 24, Section29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(f) dated 12/14/2000 and 40 CFR 63.648(a)(1)		
F.	Any pump that is designated as an unsafe-to-monitor pump is exempt from the Monitoring/Testing requirements of this section if: 1. The Company demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to immediate danger as a consequence if complying with part (iii)(A) of this section; and 2. The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in part (iii)(B) of this section if a leak is detected. [Reference: Regulation 24, Section 29 dated 11/29/94; 40 CFR 60 Subpart VV §60.482-2(g) dated 12/14/2000 and §63.648(a)(1) dated 8/18/98]. 2. Compressors.	ii. Compliance Method	v. Reporting
 i. Operational Standards A. Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR 60.482-91(c) and Operational Standards (E) and (F) of this section. [Reference: Regulation No. 24, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(a) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98] B. Each compressor seal system as required in paragraph (A) shall be: Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of Section 9 of this unit; or Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. [Reference: Regulation No. 24, Section 29, dated 	Compliance Method Compliance With the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference: Regulation No. 30, Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing A. Each barrier fluid system as described in paragraph (i)(A) of this unit shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. [Reference: Regulation No. 24, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(d), dated 7/1/00] B. 1. Each sensor as required in paragraph (A) shall be checked daily or shall be equipped with an audible alarm. 2. The company shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. [Reference: Regulation No. 2 4, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-	 A. All exceedances in accordance with Condition 3 (c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(b) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98] C. The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. [Reference: Regulation No. 24, Section29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(c) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98] D. 1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 8 of this unit. 2. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [Reference: Regulation No.24, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(g) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98]. E. A compressor is exempt from the requirements of Operational Standards (A) and (B) of this section, if it is equipped with a closed vent system to capture and transport any leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of Section 9 of this unit. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(h) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98] F. Any compressor that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the	3(e), dated 7/1/00] C. If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (B)(2), a leak is detected. [Reference: Regulation No. 24, Section28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(f), dated 7/1/00] iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
requirements of this section if the		
compressor:		
1. Is demonstrated to be operating with no		
detectable emissions, as indicated by an		
instrument reading of less than 500 ppm		
above background, as measured by the		
methods specified in 40 CFR 60, Subpart		
VV, §60.485(c), dated 7/1/00.		
2. Is tested for compliance with Operational		
Standard (F)($\underline{1}$) initially upon designation,		
annually, and at other times requested by the		
Department. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(i) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].		
G. Any existing reciprocating compressor in a		
process unit which becomes an affected		
facility is exempt from this section provided		
the Company demonstrates that recasting the		
distance piece or replacing the compressor		
are the only options available to bring the		
compressor into compliance with the		
provisions of this section. [Reference: 40 CFR 60, Subpart VV, §60.482-3(j) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].		
H. Compressors in hydrogen service are exempt		
from the requirements of this section if the		
Company demonstrates that a compressor is		
in hydrogen service. [Reference: 40 CFR 60, Subpart GGG, 60.593(b)(1) dated 7/1/2000].		
I. Each compressor is presumed to be in		
hydrogen service unless the Company		
demonstrates that it is not in hydrogen		
service. For a piece of equipment to be		

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considered in hydrogen service, it must be determined that the percent hydrogen concentration can be reasonably expected to exceed 50% by volume. [Reference: 40 CFR 60.593(b)(1) & (2) dated 10/17/2000 and 40 CFR 63.648(g) dated 8/18/98]. 3. Pressure Relief Devices in Gas/vapor Service. i. Operational Standards	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in	v. Reporting A. All exceedances in accordance with Condition 3(c)(2) of this permit.
A. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm, above background, as determined by the methods specified in 40 CFR 60, Subpart VV, \$60.485(c), dated 7/1/00. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-4(a) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. B. Any pressure relief device that is routed	accordance with the monitoring/testing and recordkeeping requirements of this section [Reference: Regulation No. 30, Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing A. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar	 B. Other reporting requirements are covered under Secton13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.
to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in Section 9 of this unit is exempted from the requirements of paragraphs (i)(A) and (iii) of this section [Reference: Regulation No. 24, Section 29, dated 11/29/94 and	days after the pressure release, except as provided in Section 8 of this unit. [Reference: Regulation No. 24, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(b)(1), dated 7/1/00] B. No later than 5 calendar days after a pressure release, the pressure relief device shall be monitored to confirm the	
40 CFR 60, Subpart VV, §60.482-4(c) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98.] C. 1. Any pressure relief device that equipped with a	conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60, Subpart	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
rupture disk upstream of the pressure relief device is exempt from the requirements in (i)(C)(2) below. 2. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482-9. [Reference 40 CFR 60, Subpart VV, §60.482-4(d) dated 12/14/2000].	VV, §60.485©, dated 7/1/00. [Reference: Regulation No. 24, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(b)(2), dated 7/1/00] iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	
 4. Sampling Connection Systems. i. Operational Standards. A. Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in the provisions for determining an equivalent means of limitation. Gasses displaced during filling of the sample container are not required to be collected or captured. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(a) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98.] B. Each closed-purge, closed-loop, or closed vent system as required in paragraph (A) of this section shall comply with the following requirements: Return the purged process fluid 	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing None. iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	v. Reporting A. All exceedances in accordance with Condition 3(c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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	itation(s)/Standard(s) and/or Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	ectly to the process line; or ectly and recycle the purged		
	ocess fluid to a process; or		
3. Be	designed and operated to capture		
and	d transport all the purged process		
flu	id to a control device that		
	mplies with the requirements of		
	ction 9 of this unit.		
	llect, store, and transport the		
	rged process fluid to any of the		
	lowing systems:		
	waste management unit as		
	fined in 40 CFR 63.111, if the		
	ste management unit is subject		
-	and operate in compliance with		
	e provision of 40 CFR part 63, opart G, application to Group 1		
	stewater streams;		
	treatment, storage, or disposal		
	cility subject to regulation under		
	CFR part 262, 264, 265, or 266;		
or	511c part 202, 20 1, 200, 61 200,		
	facility permitted, licensed, or		
	gistered by the State to manage		
mu	inicipal or industrial solid waste,		
if t	the process fluids are not		
haz	zardous waste as defined in 40		
	R part 261.		
[Re	ference: Regulation No. 24, Section dated 11/29/94 and 40 CFR 60, Subpart		
	aatea 11/29/94 ana 40 CFR 60, Suopari , §60.482-5(b) dated 7/1/00 and 40 CFR		
	468(a)(1) dated 8/18/98].		
	sampling systems and sampling		
systems	s without purges are exempt from		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
the requirements of paragraphs (A) and (B) of this section. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(c) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].		
 5. Open-ended Valves or Lines. i. Operational Standards A. 1. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. 2. The cap, blind flange, plug or second valve shall seal the open end at all times except during operations requiring process fluid flow throughout he open-ended valve or line. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. B. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second value is closed. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] C. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require 	 ii. Compliance Method: Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing: None iv. Recordkeeping None in addition to the requirements of Section 12 of this unit. 	 v. Reporting A. All exceedances in accordance with Condition 3(c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.
venting the line between the block valves but shall comply with paragraph (A) at all		

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	Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	other times. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] D. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from		
	the requirements of paragraphs (i)(A), (B), and (C) of this section. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] E. Open-ended valves or lines containing materials which would automatically polymerize or would present an explosion, serious over pressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (i)(A) through (C) of this section are exempt from the requirements of paragraphs (i)(A) through (C) of this section. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]		
6.	1	ii. Compliance Method	v. Reporting
	Liquid Service.	Compliance with the operational standards of	A. All exceedances in accordance with
i.	Operational Standards A. Each valve shall be monitored as given in section (iii) of this unit and shall comply with Operational Standards (B) through (D), except as provided in Operational Standards (E) and (F) and Sections 10 and 11 of this unit. [Reference: Regulation No. 24,	this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated11/15/93]. iii. Monitoring/Testing	Condition 3(c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] B. 1. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section 8 of this unit. 2. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]	 A. Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60 Subpart VV, §60.485(b), dated 7/1/00. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00] B. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected for existing valves as defined in 40 CFR 63.640. If an instrument reading of 500 ppm or greater is measured, a leak is detected for new valves as defined in 40 CFR 63.640. [Reference: Regulation No. 24, Section 29, dated 11/29/9, 40 CFR 60, Subpart VV, 	
3. First attempts at repair include, but are not limited to, the following best practices where practicable: 1. Tightening of bonnet bolts; 2. Replacement of bonnet bolts; 3. Tightening of packing gland nuts; 4. Injection of lubricant into lubricated packing, [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] D. Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Operational Standard (A) of this section if the valve: 1. Has no external actuating mechanism in contact with the process fluid,	\$60.482-6(a) dated 12/14/00 and 40 CFR 63.648] C. 1. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. 2. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-6(a) dated 12/14/00] iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. Is operated with emissions less than 500 ppm above background as determined by the method specified in 40 CFR 60, Subpart VV, § 60.485(c), dated 7/1/00, and		
3. Is tested for compliance with paragraph (D)(2) initially upon designation, annually, and at other times requested by the Department.		
[Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] E. Any valve that is designated as an unsafe-		
to-monitor valve is exempt from the requirements of Operational Standard (A) if:		
1. The Company of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (A), and		
2. The Company of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR		
63.648(a)(1) dated 8/18/98] F. Any valve that is designated as a difficult-to-monitor valve is exempt from the		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
requirements of Operational Standard (A) if: 1. The Company of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. 2. The Company designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and 3. The Company follows a written plan that requires monitoring of the valve at least once per calendar year. [Reference: Regulation No. 24, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]		
 7. Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges Connectors. i. Operational Standards A. If evidence of a potential leak is found by visual, audible, olfactory, or other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the Company shall follow either one of the monitoring requirements in part (iii)(A) of this section. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a) dated 12/14/2000]. 	 ii. Compliance Method Compliance with operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93] iiii. Monitoring/Testing A. 1. The Company shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and comply with the requirements of paragraphs (B) through (D) below [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a0(1), dated 12/14/00]. 2. The Company shall eliminate the visual, 	vi. Reporting A. All exceedances in accordance with Condition 3(c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	audible, olfactory, or other indication of a potential leak. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00]. B. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00]. C. 1. When a leak is detected it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9. 2. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. iv. First attempts at repair include, but are not limited to the best practices described under Section 6(i)(C) of this unit. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 8/18/98]. v. Recordkeeping None in addition to the requirement of Section 12 of this unit.	
8. Delay of Repair i. Operational Standard	ii. Compliance Method Compliance with the operational standards of	v. Reporting A. All exceedances in accordance with

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Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-9(a), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].	this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing None iv. Recordkeeping	Condition 3(c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.
 B. Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. C. Delay of repair for valves will be allowed if: 1. The Company demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and 2. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 9 of this unit. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. D. Delay of repair for pumps will be allowed 	None in addition to the requirements of Section 12 of this unit.	
if: 1. Repair requires the use of a dual		

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mechanical seal system that includes a barrier fluid system, and 2. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. E. Delay or repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-9(e)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].		
9. Closed Vent Systems and Control Devices. i. Operational Standards A. Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater or to an exit concentration of 20 ppmv, whichever is less stringent. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-10(b) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].	 ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 12/11/00] iii. Monitoring/Testing A. Control devices used to comply with the provisions of this unit shall be monitored to ensure that they are operated and 	Reporting A. All exceedances in accordance with Condition 3(c)(2) of this permit. B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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B. Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater or to an exit concentration of 20 ppmv dry corrected to 3% oxygen, whichever is less stringent, or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(c) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. C. Flares used to comply with this subpart shall comply with the requirements of 40 CFR 60, Subpart A, §60.18, dated 7/1/00 and Unit 1 of this Table. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(d) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. D. Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (E) of this section. 1. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. 2. Repair shall be completed no later than 15 calendar days after the leak is detected. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(g) dated 12/14/00 and 40 CFR 63.648(a)(1)	maintained in conformance with their designs. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(e) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. B. Except as provided in paragraphs (C) through (E) below, each closed vent system shall be inspected according to the procedures: 1. If the vapor collection system or closed vent system is constructed of hard-piping, the Company shall comply with the requirements specified in paragraphs (B)(1)(a) and (B)(1)(b) of this section: i. Conduct an initial inspection according to the procedures 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00; and ii. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. 2. If the vapor collection system or clod vent system is constructed of ductwork, the Company shall: i. Conduct an initial inspection according to the procedures in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00); and ii. Conduct an initial inspection according to the procedures in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00); and iii. Conduct annual inspections according to the procedures in 5 cc. 60.485(b). [Reference: Regulation No. 24, Section 29 dated 11/29/94]	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
E. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the Company determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(h) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. F. Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(m) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].	and 40 CFR 60, Subpart VV, §60.482-10(f), dated 12/14/00] C. If a vapor collection system or clod vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (B)(1)(a) and (B)(2) of this section. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482108(i), dated 12/14/00]. D. Any parts of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements of paragraphs (B)(1)(a) and (B)(2) of this section if they comply with the requirements specified in paragraphs (D)(1)(a) and (D)(2) of this section: 1. The Company determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (B)(1)(a) or (B)(2) of this section; and 2. The Company has a written plan that requires inspection of the equipment as frequently as practicable during safeto-inspect times. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(j) dated 12/14/00]. E. Any parts of the closed vent system that are designated as difficult to inspect are exempt from the inspection requirements of paragraphs (B)(1)(a)	

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	or (B)(2) of this section if they comply with the requirements specified in paragraphs (E)(1) through (E)(3) of this section: 1. The Company determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and 2. The owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and 3. The Company has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(k) dated 12/14/00].	
	 iv. Recordkeeping In addition to the records required by Section 12 of this unit, the Company shall record the following and keep it for at least five years. A. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. B. Identification of all parts of the closed vent 	

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	system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. C. For each inspection conducted in accordance with \$60.485(b) dated 10/17/2000 during which a leak is detected, a record of the information specified in 40 CFR 60, Subpart VV, \$60.486(c), dated 12/14/00. D. For each inspection during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. E. For each visual inspection conducted in accordance with paragraph (B)(1)(b) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.482-10(l) dated 12/14/00 and 40 CFR 63.648(a)(l) dated 8/18/98].	
 10. Alternative Standards for Valves – Allowable Percentage of Valves Leaking. i. Operational Standards A. The Company may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(a) 	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93]	v. Reporting A. The Company must notify the Department that the Company has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard as specified in section 13(c)(D). [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV,

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Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] B. Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, \$60.483-1(d) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]	iii. Monitoring/Testing A. A performance test as specified in paragraph (C) of this section shall be conducted initially upon designation, annually, and at other times requested by the Department. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(b)(2) dated 12/14/00] B. If a valve leak is detected, it shall be repaired in accordance with Section 6(B) and (C) of this unit. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(b)(3) dated 12/14/00]. C. Performance tests shall be conducted in the following manner: 1. All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00. 2. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. 3. The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(c) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98] iv. Recordkeeping	vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	None in addition to the requirements of Section 12 of this unit.	D. C.
11. Alternative Standards for Valves-Skip Period Leak Detection and Repair. i. The Company may elect to comply with one of the alternative monitoring frequencies specified in paragraphs (iii)(B) and (iii)(C) of this section. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(a) dated 12/14/00].	 iii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93] iiii. Monitoring/Testing A. A Company shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in Section 6 of this unit. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(b) dated 12/14/00]. B. After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(b)(2), dated 12/14/00]. C. After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. [Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483- 	 v. Reporting A. A Company must notify the Department before implementing one of the alternative work practices as specified in section 13(v)(D) of this unit. [Reference: Regulation No. 24, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(a) dated 12/14/00]. B. Other reporting requirements as specified in Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	 2(b)(3), dated 12/14/00] D. If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in Section 6 of this unit but can again elect to use this section. [Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, \$60.483-2(b)(4), dated 12/14/00] E. The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section. [Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(5), dated 12/14/00] iv. Recordkeeping A. The Company must keep a record of the percent of valves found leaking during each leak detection period. [Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(6), dated 12/14/00] B. The Company shall keep all the other records listed in Section 12 of this unit. 	
12. Recordkeeping requirements: 1. The Company shall comply with the recordkeeping requirements of this section. [Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(a), dated 12/14/00]		 v. Reporting None in addition to that required by Section 13 of this unit. vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.

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Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
	i. When each leak is detected, as specified in	
	Sections 1, 2, 6, 7, and 11 of this unit, the	
	following requirements apply:	
	i. A weatherproof and readily visible	
	identification, marked with the	
	equipment identification number, shall	
	be attached to the leaking equipment.	
	ii. The identification on a valve may be	
	removed after it has been monitored	
	for 2 successive months and no leak	
	has been detected during those 2	
	months.	
	<u>iii.</u> The identification on equipment except	
	for a valve, may be removed after it	
	has been repaired.	
	[Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(b),	
	dated 12/14/00]	
	ii. When each leak is detected, as specified in	
	Sections 1, 2, 6, 7 and 11 of this unit, the	
	following information shall be recorded in	
	a log and shall be kept for 5 years in a	
	readily accessible location:	
	<u>i.</u> The instrument and operator	
	identification numbers and the	
	equipment identification number.	
	ii. The date the leak was detected and the	
	dates of each attempt to repair the leak.	
	<u>iii.</u> Repair methods applied in each	
	attempt to repair the leak.	
	iv. "Above 10,000" if the maximum	
	instrument reading measured by the	
	methods specified in 40 CFR 60,	
	Subpart VV, §60.485(a), dated 7/1/00	

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Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
	after each repair attempt is equal to or	
	greater than 10,000 ppm.	
	v. "Repair delayed" and the reasons for	
	the delay if a leak is not repaired	
	within 15 calendar days after discovery of the leak.	
	vi. The signature of the Company (or	
	designate) whose decision it was that	
	repair could not be effected without a	
	process shutdown.	
	vii. The expected date of successful repair	
	of the leak if a leak is not repaired	
	within 15 days.	
	viii. Dates of process unit shutdown that	
	occur while the equipment is	
	unrepaired.	
	<u>ix</u> . The date of successful repair of the	
	leak. [Reference: Regulation No. 24, Section 29	
	dated 11/29/04 and 40 CFR 60, Subpart VV,	
	§60.486(c), dated 12/14/00] C. The following information pertaining to the	
	design requirements for closed vent	
	systems and control devices described in	
	Section 9 of this unit shall be recorded and	
	kept in a readily accessible location:	
	1. Detailed schematics, design	
	specifications, and piping and	
	instrumentation diagrams.	
	2. The dates and description of any changes	
	in the design specifications.	
	3. A description of the parameter or	
	parameters monitored, as required in 40	
	CFR 60, Subpart VV, §60.482-10(e),	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, OA/OC Procedures (as	Reporting/Compliance Certification
P • • • • • • • • • • • • • • • • • • •	, , , , , , , , , , , , , , , , , , , ,	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping dated 12/14/00, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. 4. Periods when the closed vent systems and control devices required in Sections 1-4 of this unit are not operated as designed, including periods when a flare pilot light does not have a flame. 5. Dates of startups and shutdowns of the closed vent systems and control devices required in Sections 1-4 of this unit. [Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(d), dated 12/14/00] D. The following information pertaining to all equipment subject to the requirements in Sections 1-9 of this unit shall be recorded in a log that is kept in a readily accessible location: 1. A list of identification numbers for equipment subject to the requirements of this subpart.	Reporting/Compliance Certification
	2. a. A list of identification numbers for equipment that are designed for no detectable emissions under the provisions of Sections 1(i)(D),	
	b. The designation of equipment as subject to the requirements of Sections 1(i)(D), 2(i)(F) and 6(i)(D) of this unit shall be signed.	

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Emission Limitation(s)/Standard(s) and/or	Compliance Determination Methodology	
Operational Limitation(s)/Standard(s)	(Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
	3. A list of equipment identification	
	numbers for pressure relief devices	
	required to comply with Section 3 of this	
	unit.	
	4. a. The dates of each compliance test as	
	required in Section 1(i)(D), 2(i)(F),	
	3, and 6(i)(D) of this unit.	
	<u>b.</u> The background level measured	
	during each compliance test.	
	<u>c.</u> The maximum instrument reading	
	measured at the equipment during	
	each compliance test.	
	<u>5.</u> A list of identification numbers for	
	equipment in vacuum service.	
	[Reference: Regulation No. 24, Section 29 dated	
	11/29/04 and 40 CFR 60, Subpart VV, §60.486(e), dated 12/14/00]	
	E. The following information pertaining to all	
	valves subject to the requirements of	
	Sections 6(i)(E) and (F) of this unit and to	
	all pumps subject to Section 1(i)(F) of this	
	unit shall be recorded in a log that is kept in	
	a readily accessible location:	
	1. A list of identification numbers for	
	valves and pumps that are designated as	
	unsafe-to-monitor, an explanation for	
	each valve and pump stating why the	
	valve is unsafe-to-monitor, and the plan	
	for monitoring each valve and pump.	
	<u>2.</u> A list of identification numbers for	
	valves that are designated as difficult-to-	
	monitor, an explanation for each valve	
	stating why the valve is difficult-to-	
	monitor, and the schedule for monitoring	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as	Reporting/Compliance Certification
	applicable) and Record Keeping	
	each valve. [Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(f),	
	dated 12/14/00]	
	F. The following information shall be	
	recorded for valves complying with Section	
	1 of this unit:	
	1. A schedule of monitoring.	
	<u>2.</u> The percent of valves found leaking	
	during each monitoring period.	
	[Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(g), dated 12/14/00]	
	G. The following information shall be	
	recorded in a log that is kept in a readily	
	accessible location:	
	1. Design criterion required in Sections	
	$1(i)(C)(\underline{5})$ and $2(iii)(B)(\underline{2})$ of this unit and	
	explanation of the design criterion; and	
	2. Any changes to this criterion and the	
	reasons for the changes.	
	[Reference: Regulation No. 24, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(h), dated 12/14/00]	
	H. Information and data used to	
	demonstrate that a piece of	
	equipment is not in VOC service	
	shall be recorded in a log that is kept	
	in a readily accessible location.	
	[Reference: Regulation No. 24, Section 29	
	dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(j), dated 7/1/00].	
13. Reporting requirements:	ii. Compliance Method	v. Reporting
i. Standards:	Compliance with this condition shall be	A. The Company shall submit semiannual
The Company shall submit reports as given in	demonstrated in accordance with the	reports to the Department on February 1 and

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
section (v).	reporting requirements of this section. [Reference: Regulation No. 30 Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing None. iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	July 1 of each year. [Reference: 40 CFR 60, Subpart VV, §60.487(a), dated 12/14/00]. B. The initial semiannual report to the following Department shall include the following information: 1. Process unit identification. 2. Number of valves subject to the requirements of Section 6 of this unit, excluding those valves designated for no detectable emissions. 3. Number of pumps subject to the requirements of Section 1 of this unit, excluding those pumps designated for no detectable emissions and those pumps complying with Section 2(i)(E) of this unit. 4. Number of compressors subject to the requirements of Section 2 of this unit, excluding those compressors designated for no detectable emissions and those compressors complying with Section 2(i)(G). [Reference: 40 CFR 60, Subpart VV, §60.487(n), dated 12/14/00]. C. All semiannual reports to the Department shall include the following information: 1. Process unit identification. 2. For each month during the semiannual reporting period, a. Number of valves for which leaks were detected as described in Section 6(iii)(B) or Section 11 of this unit. b. Number of valves for which leaks were

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		not repaired as required in Section 6(i)(B)(1) of this unit. c. Number of pumps for which leaks were detected as described in Section 1(iii)(B)(1) and 1(i)(C)(6)(a) of this unit. d. Number of pumps for which leaks were not repaired as required in Section 1(i)(B)(1) and 1(i)(C)(6)(b) of this unit. e. Number of compressors for which leaks were detected as described in Section 2(iii)(C) of this unit. f. Number of compressors for which leaks were repaired as required in Section 2(i)(D)(1) of this unit; and g. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. 3. Dates of process unit shutdowns which occurred within the semiannual reporting period. 4. Revisions to items reported according to paragraph (2) if changes have occurred since the initial report. [Reference: 40 CFR 60, Subpart VV, §60.487(c), dated 12/14/00]. D. An owner or operator electing to comply with the provisions of Sections 10 and 11 of unit shall notify the Department of the alternative standard selected 90 days before implementing either of the provisions. [Reference: 40 CFR 60, Subpart VV, §60.487(d), dated 10 CFR 60, S

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		vi. Compliance Certification None in addition to that required by Condition 3(c)(3) of this permit.
ob. Facility wide requirements for all emission units listed in condition 1 of this permit and any insignificant activity listed in Regulation 30, Appendix A operated by the Company or included in the permit application		
1. Visible Emissions Standard: i. The Company shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. [Reference Regulation No. 14 Section 2.1 dated 7/17/84]	ii. Compliance Method: Except for units where compliance with the visible emission standard is required to be demonstrated by an alternative monitoring plan., compliance with the emission standard of this condition shall be demonstrated in accordance with Subsection 1.5(c) of Regulation No. 20 and the recordkeeping requirements of this condition. [Reference No. 14 Section 4.1 dated 7/17/84 and Regulation No. 30 Section 6(a)(3) dated 11/15/93]	 v. Reporting Requirement: All records indicating exceedances of the standard in accordance with Condition 3(c)(2) of this permit. vi. Certification Requirement: None in addition to Condition 3(c)(3) of this permit.
	iii. Monitoring/Testing: A. In accordance with Regulation No. 20 Section 1.5, conduct visual observations at fifteen second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 and 3 (except for Section 2.5 and the second	

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	sentence of Section 2.4) of reference Method 9 set forth in Appendix A, 40 CFR Part 60 revised July 1, 1982. [Reference Regulation No. 20 Section 1.5(c) dated 12/7/88] B. The Company shall conduct weekly qualitative observations to determine the presence of any visible emissions. 1. If visible emissions are observed, the Company shall take corrective actions and/or determine compliance by conducting a visible observation in accordance with Paragraph (A) above. 2. If no visible emissions are observed or are within permitted limits, no further action is required. [Reference: Reg. No. 30 Section 6(a)(3) dated 11/15/93]. iv. Record Keeping: Observation records shall be maintained in accordance with Condition 3(b). [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 11/15/93]	
2. Odor – State Enforceable Only i. The Company shall not cause or allow the emission of an odorous air contaminant such as to cause a condition of air pollution. [Reference Regulation No. 19 Section 2.1 dated 2/1/81]	 ii. Compliance Method: Compliance with the emission standard of this condition shall be demonstrated in accordance with the monitoring/testing and record keeping requirements of this condition. [Reference Regulation No. 30 Section 6(a)(3) dated 11/15/93] iii. Monitoring/Testing: Includes but is not limited to scentometer tests, air quality monitoring, and affidavits from affected citizens and investigators. [Reference Regulation No. 19 Section 1.2 dated 2/1/81] iv. Recordkeeping: Records of all monitoring/testing shall be maintained in accordance with Condition 3(b). [Reference 	 v. Reporting Requirement: All records indicating exceedances of the standard in accordance with Condition 3(c)(2) of this permit. vi. Certification Requirement: None in addition to Condition 3(c)(3) of this permit.

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	Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping		Reporting/Compliance Certification
		Regulation No. 30 Section 6(a)(3)(i)(B) dated 11/15/93]		
3. i.	With the exception of segregated storm water runoff drain systems and non-contact cooling water systems, the Company shall comply with the following standards for	 ii. Compliance Method: Compliance shall be demonstrated through adherence to the applicable monitoring/testing and record keeping requirements of this section. [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 11/15/93]. iii. Monitoring/Testing: The Company shall: 	iii.	Record keeping Requirement: None in addition to condition 3(c)(2) of this permit. Certification Requirement: None in addition to condition 3(c)(3) of this permit.
1	 process Unit Turnarounds: The owner or operator of a petroleum refinery shall provide for the following during process unit turnaround: Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox. No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa)(19.7 pounds per square inch atmospheric [psia]) or less. [Reference Regulation No. 24 Section 28(c) dated 11/11/93]. 	 A. Monitor the internal pressure of each process unit and vessel immediately prior to venting to the atmosphere. [Reference Regulation No. 24 Section 28(c) and (d) dated 11/15/93]. iii. Record Keeping: The Company shall maintain the records of the following items in accordance with Condition 3(b): A. Date of every process unit or vessel turnaround. B. The internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. [Reference Regulation No. 24 Section 28(c) and (d) dated 11/11/931. 		
4. i.	General conditions applicable to all pollutants: Operational Limitations:	ii. Compliance Methodology: [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] A. Compliance with operational limitations	v.	Reporting Requirement: None in addition to Condition 3(c)(2) of this permit.
	A. At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution	A and B, shall be based on whether acceptable operating procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures,	vi.	Certification Requirement: None in addition to Condition 3(c)(3) of this permit.

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control practice for minimizing emissions.	and inspection of the source.	
B. All structural and mechanical components shall be maintained in proper operating condition.	iii. Monitoring/Testing: None proposed.	
	iv. Record Keeping: None in addition to Condition 3.b.2. of this permit.	
5. Sulfur Dioxidei. Operational Limitation:The Company shall not purchase for use	ii. Compliance Methodology: Compliance with the operational limitation shall be based on the fuel type and quality. [Reference:	v. Reporting Requirement: None in addition to Condition 3(c)(2) of this permit.
and shall not use any fuel having a sulfur content greater than 1.0 percent. [Reference Regulation No. 8, Section 2.1 dated 5/9/85]	Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] iii. Monitoring/Testing: None proposed.	vi. Certification Requirement: None in addition to Condition 3(c)(3) of this permit.
	iv. Record Keeping: The Company shall maintain a record of the type of fuel purchased for use or used in any emission unit. [Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]	
6. Volatile Organic Compounds Handling, Storage and Disposal of VOCs.	ii. Compliance Method: Compliance shall be demonstrated by adherence with the VOC	v. Record Keeping Requirement: None in addition to condition 3(c)(2) of this permit.
i. Work Practice Standards:	handling work practices by providing	addition to condition $S(C)(2)$ of this permit.
A. The Company shall not cause, allow, or permit the disposal of more than eleven (11) pounds of a Volatile Organic Compound (VOC), or of any materials containing more than eleven	appropriate training and posting of instructions, and record keeping for storage, use and disposal of VOCs. [Reference Regulation No. 30 Section 6(a)(3) dated 12/11/00]	vi. Certification Requirement: None in addition to condition 3(c)(3) of this permit.
(11) pounds of any VOCs, in any one (1) day, in a manner that would permit the evaporation of VOC into the ambient air. This includes but is not limited to the disposal of VOC from	iii. Monitoring/Testing: Monitor employee training records on an annual basis and update records as needed. [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]	
any VOC control devices. This provision does not apply to:	iv. Recordkeeping: The Company shall keep a record of postings, and employee training	

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	Limitation(s)/Standard(s) and/or onal Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
1	1. Any VOC or material containing VOC emitted from a regulated entity that is subject to a VOC standard under Regulation No. 24.	related to these work practice standards and handling, storage, and disposal of VOCs. [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]	
	2. Any VOC or material containing VOCs used during process maintenance turnarounds for cleaning purposes, provided that the provisions of paragraph (B), (C), and (D) of this condition are followed. 3. Waste paint (sludge) handling systems, water treatment systems, and other similar operations at coating facilities using complying		
S S C C C V V C C C V C C C V C C C C C	coatings. No owner or operator of a facility subject to this regulation shall use open containers for the storage or disposal of cloth or paper impregnated with VOCs that are used for surface oreparation, cleanup, or coating removal. Containers for the storage or disposal of cloth or paper impregnated with VOCs shall be kept closed, except when adding or removing material.		
C. M	No owner or operator of a facility subject to this regulation shall store in open containers spent or fresh VOC to be used for surface preparation, cleanup or coating removal.		

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Condition 3 – Table 1 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Containers for the storage of spent or fresh VOCs shall be kept closed, except when adding or removing material. D. No owner or operator shall use VOC for the cleanup of spray equipment unless equipment is used to collect the cleaning compounds and to minimize their evaporation to the atmosphere. [Reference Regulation No. 24, Section 8 dated 11/29/94]		
 i. The facility is allowed to operate the insignificant emissions units listed in Attachment "C" of this permit. [Reference: Reg. No. 30 Section 6(a)(1) dated 12/11/00]. 	 ii. Compliance Method: Compliance shall be based on following good air pollution control practices, the monitoring/testing and recordkeeping requirements. [Reference Regulation No. 30 Section 6(a)(3) dated 12/11/00] iii. Monitoring/Testing: None in addition to Condition 3(b). [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] iv. Recordkeeping: None in addition to Condition 3(b). [Reference Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00] 	 v. Record Keeping Requirement: None in addition to condition 3(c)(2) of this permit. vi. Certification Requirement: None in addition to condition 3(c)(3) of this permit.

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Condition 4. Operational Flexibility

- a. In addition to the operational flexibility specifically provided in the terms and conditions detailed in Condition 3 Table 1 of this permit, the Company is authorized to make any change within the facility which contravenes the terms and conditions of this permit without a permit revision if the change:
 - 1. Is not a modification or otherwise prohibited under any provision of Title I of the Act or the State Implementation Plan (SIP); and [Reference Regulation No. 30 Section 6(h), dated 11/15/93].
 - 2. Does not involve a change in any compliance schedule date; and [Reference Regulation No. 30 Section 6(h), dated 11/15/93].
 - 3. Does not result in a level of emissions exceeding the emissions allowable under this permit, whether expressed herein as a rate of emissions or in terms of total emissions. [Reference Regulation No. 30 Section 6(h), dated 11/15/93].
- b. Before making a change under the provisions of Condition 4(a) of this permit, the Company shall provide advance written notice to the Department and to the EPA in accordance with Condition 3(c)(2)(iii) of this permit. [Reference Regulation No. 30 Section 6(h)(1), dated 11/15/93].
- c. The Company shall keep records of any change made under Condition 4 of this permit in accordance with Condition 3(b)(2)(iv) of this permit. [Reference Regulation No. 30 Section 6(h)(1), dated 11/15/93].

Condition 5. Compliance Schedule

The most recent revision (i.e. Revision 9) of the permit application indicates two non-complying requirements

- a. The MVR system at the refinery is subject to the reporting requirements in 40 CFR 63.567(j). This report has been submitted to DNREC as part of the annual emissions inventory. However, it has not been submitted to the EPA. The application indicates Premcor plans to submit this report to EPA by 01/30/2008.
- b. Premcor is presently leasing 6 portable diesel driven air compressors with engine power rating greater than 450 hp for stand by duty operations. Two of these compressors provide reliable emergency back up supply air to the FCCU withdrawal well in the event refinery utility air supply is interrupted. Premcor plans to complete its reliability improvement to the refinery utility air system by 04/01/2008 and eliminate the 2 portable compressors at the FCCU. The remaining 4 compressors will continue to serve as stand by units and will be exempted under Regulation 30, Appendix "A", Section b.2.

Therefore, this permit does not contain a compliance schedule. [Reference Regulation No. 30 Section 6(c)(3), dated 11/15/931.

Condition 6. Permit Shield

Compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements as provided in Condition 6—Table 1 as of the effective date of this permit. [Reference Regulation No. 30 Section 6(f)(3), dated 11/15/93].

Condition 6 – Table 1

Emission Unit	Applicable Requirement
1. Emission Unit 10	i. Regulation No. 2
	ii. Regulation No. 3
	iii. Regulation No. 4, Section 2.1

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	iv. Regulation No. 8, section 2.1
	v. Regulation No. 12, Section 4.1
	vi. Regulation No. 14, Section 2.1
	vii. Regulation No. 20
	viii. Regulation No. 24, Sections 1-10, 26, 28, 29
	and 36
	ix. 40 CFR Part 60, Subpart J
	x. 40 CFR Part 60, Subpart QQQ
	xi. 40 CFR Part 62, Subpart FF
	xii. 40 CFR Part 63, Subpart CC
2. Emission Unit 15	i. Regulation No. 2
2. Eliission Oliit 13	ii. Regulation No. 3
	iii. Regulation No. 4, Section 2.1
	iv. Regulation No. 8, Section 2.1
	v. Regulation No. 12
	vi. Regulation No. 14, Section 2.1
	vii. Regulation No. 17, Section 2.2
	viii. Regulation No. 20
	ix. Regulation No. 24, Section 1-10, 28, 29 and 43
	x. 40 CFR Part 60, Subpart A
	xi. 40 CFR Part 60, Subpart J
	xii. 40 CFR Part 63, Subpart Y
	xiii. 40 CFR Part 63, Subpart CC
3. Emission Unit 21	i. Regulation No. 2
	ii. Regulation No. 3
	iii. Regulation No. 4, Section 2.1
	iv. Regulation No. 8, Section 2.1
	v. Regulation No. 9, Section 1.1
	vi. Regulation No. 12
	vii. Regulation No. 14, Section 2.1
	viii. Regulation No. 17, Section 2.3
	ix. Regulation No. 20
	x. Regulation No. 24, Section 1-10 and 29
	xi. Regulation No. 25
	xii. Regulation No. 39
	xiii. 40 CFR Part 60, Subpart J
	xiv. 40 CFR Part 60, Subpart VV
	xv. 40 CFR Part 60, Appendix B
	xvi. 40 CFR Part 60, Appendix F
	xvii. 40 CFR Part 63, Subpart CC
4. Emission Unit 22	i. Regulation No. 2
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	iii. Regulation No. 4, Section 2.1
	iv. Regulation No. 5
	v. Regulation No. 8, Section 2.1
	vi. Regulation No. 9, Section 1.1
	vii. Regulation No. 11, Section 2.1
	viii. Regulation No. 12, Section 3
	ix. Regulation No. 14, Section 2.1
	x. Regulation No. 17, Section 2.3
	xi. Regulation No. 24, Section 1-10 and 29
	xii. Regulation No. 39
	xiii. 40 CFR Part 60, Subpart VV
	xiv. 40 CFR Part 60, Appendix B

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xvi. 40 CFR Part 63, Subpart CC	rage 139	T
5. Emission Unit 23 i. Regulation No. 2 ii. Regulation No. 3 iii. Regulation No. 4, Section 2.1 iv. Regulation No. 5 v. Regulation No. 8, Section 1.1 vii. Regulation No. 11, Section 2.1 vii. Regulation No. 11, Section 2.1 viii. Regulation No. 11, Section 2.1 viii. Regulation No. 17, Section 2.3 x. Regulation No. 20 xi. Regulation No. 20 xi. Regulation No. 29 xiii. A0 CFR Part 60, Subpart VV xiv. 40 CFR Part 63, Subpart UUU i. Regulation No. 2 iii. Regulation No. 3 iiii. Regulation No. 4, Section 2.1 iv. Regulation No. 12, Section 3 iv. Regulation No. 14, Section 1.1 iv. Regulation No. 14, Section 1.1 iv. Regulation No. 2 ii. Regulation No. 2 ii. Regulation No. 3 iii. Regulation No. 3 iii. Regulation No. 4 iii. Regulation No. 5 iv. Regulation No. 6 iii. Regulation No. 7 iv. Regulation No. 6 iii. Regulation No. 7 iv. Regulation No. 1		xv. 40 CFR Part 60, Appendix F
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ATTACHMENT "A"

Initial Evaluation of Operation and Performance of the Coker (FCU) WGS

The procedures described herein provide for the initial evaluation and performance of the FCU WGS spanning a period of 12 months from start up. Start up of the FCU WGS has an effective date of September 30, 2006. These requirements are applicable during the interim period plus an additional 6 months ending March 31, 2008. After the expiration of the 18 month start up period, these procedures will expire and the Company must comply with all emissions limitations and all conditions in the Operating permit, even during startup, shutdown and during trips or malfunctions unless the permit is revised in accordance with the following: The Company submits to DNREC proposed operating procedures to govern such occurrences that may occur after the 12 month period and DNREC will review these procedures and will incorporate appropriate operating scenarios to govern such instances into this permit. Provided, however, that any incorporated operating scenario governing beyond the 12 month period shall specify that after a time certain the Company must effectuate the turndown ratios provided in this Attachment and that after a future time certain the Company may not continue to operate the FCU without the pollution control devices so that the FCU must be turned off rather than turned down, and under what circumstances.

Rationale:

The technology incorporated into the WGS has not previously been implemented in any similar application at any other facility in the United States. Accordingly, the Company shall perform an enhanced evaluation during the 12 month period following initial operation of the WGS of anticipated variations in the WGS system performance, including any malfunction or other unintended shutdown of the WGS system. Premcor shall investigate the underlying causes of any malfunction, evaluate the effectiveness of various operational practices, and analyze alternative maintenance procedures. The objective of these investigations will be to identify reasonably available maintenance and operating practices that will minimize events resulting in the bypass of the Belco prescrubber and the WGS, and to minimize the duration of any such bypass incidents in the event that they occur. Premcor will implement appropriate corrective action to minimize the duration of any bypass event during these circumstances. In addition, Premcor will continue to implement the turndown matrix provided in this Attachment during this twelve month evaluation period.

Interim Control Measures

The Company shall comply with the following interim control measures:

1. The requirements in Conditions 2.1.3, 2.1.5 and 2.2 and Regulations 5, 11 and 14 of the State of Delaware "Regulations Governing the Control of Air Pollution" shall not apply during periods of planned start up and planned shut downs of the FCU provided the planned start up and shut down event does not exceed 116 hours. The requirements shall apply to each planned start up or shut down event after the expiration of the 116 hour

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period. Planned start ups shall be considered a maximum of 116 hours preceding oil back into the unit. Planned shut downs shall be considered a maximum of 116 hours from feed out of the FCU.

- 2. In the event that the FCU COB and the WGS are shut down, operation of the FCU with the Backup Incinerator shall be in accordance with this Attachment A of this permit subject to the following emission restrictions:
 - 2.1 Carbon Monoxide combustion shall be achieved at a minimum of 1300°F, and at a minimum retention time of 0.3 second; and
 - 2.2 Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot ("dscf") shall be achieved either by operating at a temperature of 1700°F, a minimum excess of 1.9% O₂ and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions.
- 3. At the start of a planned shut down or start up of the FCU COB and WGS, the Company shall have a maximum transition time of 4 hours to allow the transfer of gases and heat to or from the FCU Back Up Incinerator, to or from the FCU COB and WGS to reach performance standards. During this transition period, the permit limitations in Conditions 2.2 and 2.4 and Regulations 5, 11 and 14 of the State of Delaware "Regulations Governing the Control of Air Pollution" shall not apply.

If there is an emergency shut down of the FCU COB and the WGS, the Company has a maximum of 24 hours, starting from the removal of the FCU COB and the WGS from service, until the FCU off gases must totally enter the FCU Back Up Incinerator and the Company must meet the permitted stack emission standards as per the turndown matrix in Table 1 of this permit. During this period (24 hour maximum), the permit limitations stated in Conditions 2.2 and 2.4 and Regulations 5, 11 and 14 of the State of Delaware "Regulations Governing the Control of Air Pollution" shall not apply. The 24 hours needed for start up are due to the controlled heat-up increments of the FCU Back Up Incinerator, to prevent spalling of the refractory and firebrick and other possible major damage. If the CO Boiler and Wet Gas Scrubber can be repaired in less than 24 hours, then the back up incinerator does not have to be started up and flue gas may continue to be diverted to the metal bypass stack to allow the CO Boiler and Wet Gas Scrubber to be repaired or restarted.

If there is an emergency shut down of the FCU COB and WGS, the Company may conduct an evaluation of the cause of the shut down. If the Company's initial determination is that the FCU COB and WGS can be repaired or restarted in less than 24 hours, then it shall be repaired or restarted, and the Back Up Incinerator need not be started up, the rationale being that each hour produces substantially less pollution. Nonetheless, if the FCU COB and WGS are not restarted and operational during the 24 hour period, the permit conditions

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and regulations above shall apply after the 24 hour period and emissions in excess of permitted levels after 24 hours will constitute a Permit violation

By no later than November 30, 2007 Premcor shall submit to the Department a report describing the individual incidents during which bypasses occurred, the duration of any such bypass and the results of Premcor's investigation into the cause of the bypass event. The report shall also include Premcor's proposal for determining, the circumstances under which an unplanned shutdown of the FCU COB, Belco prescrubber and/or WGS should trigger initiation of procedures to shutdown the FCU. The report shall include a specific proposal describing the maximum duration that the FCU will be allowed to operate in the bypass mode before it is shut down. In determining such maximum duration that the FCU will be allowed to operate in the bypass mode, Premcor shall take into consideration engineering analysis, good air pollution control practices and the outer bounds set by planned start ups and shut downs. The Department will review the report and incorporate appropriate revised operating scenarios in this permit.

Turn Down Matrix

These procedures have been incorporated to restrict the FCU sulfur dioxide (SO₂) emission rate to less than 4,450 lbs/hr during time periods that the FCU COB and WGS are bypassed by implementing the alternate operating scenarios (conditions of start-up, shutdown or malfunctions).

The Company shall assess the cause and determine the course of action following unplanned shutdowns and malfunctions of the COB and WGS. If the COB and WGS can be restarted or any necessary repairs can be completed within 12 hours, no rate cuts need be initiated. If the COB and WGS cannot be restarted or if repairs cannot be completed within 12 hours, the rate cuts in Table 1 shall be initiated and implemented. When the FCU feed throughput rate of 31,500 barrels/day is achieved, this rate will be maintained for the duration of the COB and WGS outage. A tabular summary of potential scenarios is provided below in Table 1.

Table 1
Example of DCR FCU SO₂ Emissions
During Implementation of Turndown Matrix

FCU Feed Rate	FCU Feed	SO ₂ Emissions
(KBD)	Wt.% S	(lb/hr)
31.5	6.0	4441.5
31.5	5.5	4071.4
31.5	5.0	3701.3
31.5	4.5	3331.1
31.5	4.0	2961.0

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ATTACHMENT "B"

Initial Evaluation of Operation and Performance of the FCCU WGS

The procedures described herein provide for the initial evaluation and performance of the FCCU WGS spanning a period of 12 months from start up. Start up of the FCCU WGS has an effective date of December 31, 2006. These requirements are applicable during the interim period plus an additional 6 months ending June 30, 2008. After the expiration of the 18 month start up period, these procedures will expire and the Company must comply with all emissions limitations and all conditions in the Operating permit, even during startup, shutdown and during trips or malfunctions unless the permit is revised in accordance with the following: The Company submits to DNREC proposed operating procedures to govern such occurrences that may occur after the 12 month period and DNREC will review these procedures and will incorporate appropriate operating scenarios to govern such instances into this permit. Provided, however, that any incorporated operating scenario governing beyond the 12 month period shall specify that after a time certain the Company must effectuate the turndown ratios provided in this Attachment and that after a future time certain the Company may not continue to operate the FCCU without the pollution control devices so that the FCCU must be turned off rather than turned down, and under what circumstances.

Rationale:

The technology incorporated into the WGS has not previously been implemented in any similar application at any other facility in the United States. Accordingly, the Company shall perform an enhanced evaluation during the twelve month period following initial operation of the WGS of anticipated variations in the WGS system performance, including any malfunction or other unintended shutdown of the WGS system. Premcor shall investigate the underlying causes of any malfunction, evaluate the effectiveness of various operational practices, and analyze alternative maintenance procedures. The objective of these investigations will be to identify reasonably available maintenance and operating practices that will minimize events resulting in the bypass of the Belco prescrubber and the WGS, and to minimize the duration of any such bypass incidents in the event that they occur. Premcor will implement appropriate corrective action to minimize the duration of any bypass event during these circumstances. In addition, Premcor will continue to implement the turndown matrix provided in this Attachment during this twelve month evaluation period.

Interim Control Measures

The Company shall comply with the following interim control measures:

2. The requirements in Condition 2 and Regulations 5, 11 and 14 of the State of Delaware "Regulations Governing the Control of Air Pollution" shall not apply during periods of planned start up and planned shut downs of the FCCU provided the planned start up and shut down event does not exceed 72 hours. The requirements shall apply to each planned start up or shut down event after the expiration of the 72 hour period.

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NOTES:

- a. Start-up of the FCCU begins when feed is first introduced into the reaction section of the Fluid Catalytic Cracking Unit, and the start-up is complete when the FCCU has reached a stable, steady state operation.
- b. Shut-down of the FCCU begins when feed first begins to be reduced to the reaction section of the FCCU and is complete when no feed is entering the FCCU reaction section.
- 2. <u>Unplanned Start-up and Shutdown of Fluid Catalytic Cracker Unit CO Boiler and Wet Gas Scrubber</u>. In the event that the FCCU COB is to be shut down for a period longer than 24 hours, Premcor shall promptly begin necessary process changes to provide for the complete combustion of carbon monoxide. Full CO combustion operation shall be achieved within 24 hours.

If there is an emergency shutdown of the FCCU CO Boiler and WGS due to upsets or malfunctions, the refinery will take the following steps:

- Immediately begin the necessary process changes to allow for the complete combustion of carbon monoxide in the regenerator; and
- FCCU throughput and operating conditions will be safely adjusted as necessary (see FCCU Turndown Factor below) to allow full CO combustion operation to be achieved within 24 hours of attainment of appropriate operating conditions.

During this period (24 hours maximum), the requirements in Condition 2 and Regulations 5, 11 and 14 of the State of Delaware "Regulations Governing the Control of Air Pollution" shall not apply.

If there is an unplanned or emergency shutdown of the FCCU CO Boiler and the Wet Gas Scrubber system, the refinery will conduct an evaluation of the cause of the shutdown. If the CO Boiler and Wet Gas Scrubber can be repaired in less than 24 hours, then the regenerator flue gas may continue to be diverted to the metal bypass stack to allow the CO Boiler and Wet Gas Scrubber to be repaired or restarted, and combustion promoter need not be added. It is recognized that up to 10 days may be required to shutdown CO combustion operation and return to conventional regeneration once CO promoter is introduced into the regenerator. Until the FCCU CO boiler and WGS are returned to normal operation, in order to minimize FCCU emissions, the FCCU feed rate will be reduced to the minimum operating rate as described in the FCCU Turndown Factor below.

3. By no later than February 29, 2008, Premcor shall submit to the Department a report describing the individual incidents during which bypasses occurred, the duration of any such bypass and the results of Premcor's investigation into the cause of the bypass event.

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The report shall also include Premcor's proposal for determining, the circumstances under which an unplanned shutdown of the FCCU COB, Belco prescrubber and WGS should trigger initiation of procedures to shutdown the FCCU. The report shall include a specific proposal describing the maximum duration that the FCCU will be allowed to operate in the bypass mode before it is shut down. In determining such maximum duration that the FCCU will be allowed to operate in the bypass mode, Premcor shall take into consideration engineering analysis, good air pollution control practices and the outer bounds set by planned start ups and shut downs. The Department will review the report and incorporate appropriate revised operating scenarios in this permit.

FCCU Turn Down Factor

These procedures have been incorporated to minimize FCCU emissions during time periods that the FCCU COB and WGS are bypassed due to alternate operating scenarios (conditions of start-up, shutdown or malfunctions).

- 1. If the Company's initial assessment indicates that the FCCU CO Boiler and WGS can be returned to service within 24 hours after the unplanned shutdown or emergency shutdown, then no rate cuts will be initiated and combustion promoter need not be added. The FCCU may continue to operate until the CO boiler and WGS are restarted.
- 2. If the Company's initial assessment indicates that the FCCU CO Boiler and WGS cannot be returned to service within 24 hours after the unplanned or emergency shutdown, the Company shall take the following actions:
 - a. The Company will promptly begin to reduce the FCCU feed rate at a rate of 5,000 bph until the unit is operating at 55,000 bpd; and
 - b. Combustion promoter will be added to the FCCU regenerator when appropriate operating conditions have been achieved. Fully promoted (complete) combustion will be achieved within 24 hours of the start of the unplanned or emergency shutdown; and
 - c. It is recognized that up to ten days may be required to shutdown CO combustionpromoted burn and return the FCCU regenerator to conventional regeneration; and
 - d. Once full burn operation is achieved, the FCCU will continue to operate at no more than 55,000 bpd until the CO boiler and WGS are returned to normal operation.

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ATTACHMENT "C"

AQM-1001CC/Group 1 Insignificant Activities

Agiii-100100/Gloup 11	t Addivided	
Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Air contaminant detectors, Air contaminant recorders, combustion controllers and combustion shut-offs	(a)	No applicable federal or state requirement(s), hence no list required nor available.
Fuel-burning equipment which uses any fuel and has a rated heat input of less than 15 million BTUs per hour	(b)(1)	The stationary fuel burning sources less than 15 MMBtu/hr are included in AQM-1001A. Insignificant fuel burning activities not listed include: cooking fires, building HVAC, portable space heaters, portable ignitors, etc. There are no applicable federal or state requirement(s), hence no list is required or available.
Internal Combustion Engine that Drives Compressors	(b)(2)	Internal combustion engines used to drive compressors are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Generators	(b)(2)	Internal combustion engines used to drive generators are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Water Pumps		Internal combustion engines used to drive water pumps are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Other Auxiliary Equipment During Emergency or Standby Operations	(b)(2)	Internal combustion engines used to drive other auxilary equipment are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details		
Air Conditioning and Comfort Ventilating Systems		No applicable federal or state requirement(s), hence no list required nor available.		
Vacuum Cleaning Systems Used Exclusively for Office Applications	(d)	No applicable federal or state requirement(s), hence no list required nor available.		
Ventilating or Exhaust Systems for Print Storage Room Cabinets	(e)	No applicable federal or state requirement(s), hence no list required nor available.		
Exhaust System for Controlling Steam and Heat	(f)	No applicable federal or state requirement(s), hence no list required nor available.		
Laboratories that conduct chemical or physical analysis or determination of product quality and commerical acceptance (not part of production process)	(g)	Laboratory constructed in 1956 and is exempt per DNREC Regulation No. 2; no applicable federal or state requirement(s), hence no additional information is required nor available.		
Internal Combustion Engines and Vehicles Used for the transport of passengers or freight	(h)	No applicable federal or state requirement(s), hence no list required nor available.		
Maintenance, repair or replacement-in-kind or equipment for which a permit to operate has been issued	(j)	This is merely an activity, hence no list required nor available.		
Equipment which only emits elemental nitrogen, oxygen, carbon dioxide and/or water vapor	(k)	No applicable federal or state requirement(s), hence no list required nor available.		

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details		
Ventilating and Exhaust Systems used in cafeterias and eating facilities	(1)	No applicable federal or state requirement(s), hence no list required nor available.		
Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air	(m)	No applicable federal or state requirement(s), hence no list required nor available.		
Outdoor painting and sandblasting equipment	(p)	No applicable federal or state requirement(s), hence no list required nor available.		
Lawn mowers, tractors, farm equipment and construction equipment	(q)	No applicable federal or state requirement(s), hence no list required nor available.		
Any activity related to routine maintenance and repair of a facility where emissions would not be associated with a primary production process of the facility. Such activities may include	(s)	No applicable federal or state requirement(s), hence no list required nor available.		
Cleaning	(s)(i)	No applicable federal or state requirement(s), hence no list required nor available.		
Solvent Use	(s)(ii)	No applicable federal or state requirement(s), hence no list required nor available.		
Steam Cleaning	(s)(iii)	No applicable federal or state requirement(s), hence no list required nor available.		

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Painting	(s)(iv)	No applicable federal or state requirement(s), hence no list required nor available.
Degreasing	(s)(v)	No applicable federal or state requirement(s), hence no list required nor available.
Washing	(s)(vi)	No applicable federal or state requirement(s), hence no list required nor available.
Welding	(s)(vii)	No applicable federal or state requirement(s), hence no list required nor available.
Vacuuming	(s)(viii)	No applicable federal or state requirement(s), hence no list required nor available.
Coating	(s)(ix)	No applicable federal or state requirement(s), hence no list required nor available.
Sweeping	(s)(x)	No applicable federal or state requirement(s), hence no list required nor available.
Abrasive Use	(s)(xi)	No applicable federal or state requirement(s), hence no list required nor available.

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Insulation Removal	(s)(xii)	No applicable federal or state requirement(s), hence no list required nor available.
Fire schools or fire fighting training	(t)	No applicable federal or state requirement(s), hence no list required nor available.
Buildings, cabinets and facilities used for storage of chemicals in closed containers	(u)	No applicable federal or state requirement(s), hence no list required nor available.
Gasoline storage tanks that have a capacity less than 2,000 gallons and that were constructed after January 1, 1979	(v)(ii)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Gasoline storage tanks that have a capacity less than 250 gallons and that were constructed after December 31, 1978	(v)(iii)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Diesel and fuel oil storage tanks with a capacity of 40,000 gallons or less	(w)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Gasoline and diesel fuel dispensing systems that never exceed a monthly throughput of 10,000 gallons	(x)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Inorganic acid storage tanks equipped with an emission control device	(z)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).

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Insignificant Activity/Description	Basis [1]	Insignificant Activity Details		
Sewage treatment facilities	(aa)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.		
Water treatment units	(bb)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.		
Quiescent wastewater treatment operations	(cc)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.		
Non-contact water cooling towers	(dd)	See custom Form AQM-1001B for cooling tower sources		
Laundry dryers, extractors, or tumblers used for fabrics cleaned with a water solution of bleach or detergents		No applicable federal or state requirement(s), hence no list required nor available.		
Equipment used for hydraulic testing or hydrostatic testing		No applicable federal or state requirement(s), hence no list required nor available.		
Blueprint copiers or photographic processes	(gg)	No applicable federal or state requirement(s), hence no list required nor available.		

NOTE [1]: Basis codes refer to items in Delaware Regulation 30, Appendix A, Insignificant Activities List.

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AQM-1001CC/Group 2-Insignificant Activities

Source		CAS	Potential to	Basis	Insignificant	
(Activity/Equipment Description)	Pollutant	Number	Emit Emission Rate	[1]	Activity PTE Threshold [2]	Source Details
Motor Vehicle Diesel Loading	VOC	N/A	<25 TPY	а	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x).
Motor Vehicle Gasoline Loading	voc	8006-61- 9	<25 TPY	а	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x).
WWTP Wet Oil Sludge Loading	VOC	N/A	<25 TPY	а	25 TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Ammonia Unloading	NH ₃	7664-41- 7	<25 TPY	а	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Ammonia Storage Tank 417-TP-M Used for Ph Control at Crude Unit	Ammonia	7664-41- 7	<10 TPY	a	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Ammonia-Mobile Trailers (Hydrocracker and other Units)	Ammonia	7664-41- 7	<10 TPY	а	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Fuel Oil/Diesel Loading	voc	N/A	<25 TPY	а	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x). No toluene loading here.

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Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
Decant/Heavy Oil Loading	voc	N/A	<25 TPY	а	25 TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Propane Loading	VOC	N/A	<25 TPY	а	25 TPY	The regulated air contaminant is in an enclosed system; emissions are negligible.
Glycol Water Reservoir D-38	VOC	N/A	<25 TPY	а	25 TPY	There are negligible emissions of any regulated air contaminant.
Sulfuric Acid Loading	SO ₂ /H ₂ SO ₄	7446-09- 05	<25 TPY	а	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Vent Boxes for Cooling Water System	voc	N/A	<25 TPY	а	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Boiler Feedwater Chemical Storage Tanks	VOC	N/A	<25 TPY	а	25 TPY	There are negligible emissions of the listed regulated air pollutant.
LUB Oil Units/Systems	VOC	N/A	<25 TPY	а	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Small Unit Tanks used for Raw Materials, Additives, Reagents and Intermediates with a capacity less than 40,000 gallons	VOC	N/A	<25 TPY	а	25 TPY	See detail sheet "AQM-1001CC/Group 2 Insignificant Activities Detail Sheet Small Unit Tanks Used for Raw Materials, Additives, Reagents and Intermediates"

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Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
FCCU Catalyst System	PM	N/A	<100 TPY	а	100TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Cooling Water Supply Pumps	VOC	N/A	<25 TPY	а	25 TPY	There are negligible emissions of the listed regulated air pollutant.

NOTE [1]: Bases for Determinations are as follows:

(a) = potential to emit emissions rate is below threshold for insignificant activities emissions.

NOTE [2]: Insignificant Activity PTE threshold based on Delaware Regulation No. 30, Appendix A, for Emission Units for which an applicable requirement has not yet been promulgated and which are not elsewhere listed as an insignificant activity.

NOTE [3]: No Insignificant Activity PTE Threshold Established.

NOTE [4]: This source was formerly named "Toluene Loading".

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pc: Dover Title V File
Bruce Steltzer